UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

EXXON MOBIL CORPORATION, Plaintiff, v. ERIC TRADD SCHNEIDERMAN, Attorney General of New York, in his official capacity, and MAURA TRACY HEALEY, Attorney General of Massachusetts, in her official capacity. Defendants.	§	No. 17-CV-2301 (VEC) (SN)

DECLARATION OF JUSTIN ANDERSON

I, Justin Anderson, declare pursuant to 28 U.S.C. § 1746:

1. I am an attorney with Paul, Weiss, Rifkind, Wharton & Garrison LLP, counsel for Exxon Mobil Corporation ("ExxonMobil") in the above-captioned matter.

2. I submit this declaration in support of ExxonMobil's Motion for Leave to File a Second Amended Complaint.

3. Attached to this declaration as Exhibit A is ExxonMobil's proposed Second Amended Complaint.

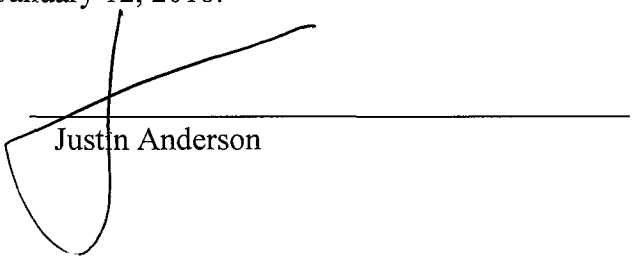
4. Attached to this declaration as Exhibit B is a proposed Appendix of Exhibits to ExxonMobil's proposed Second Amended Complaint.

5. Attached to this declaration as Exhibit C is a redlined document

comparing ExxonMobil's First Amended Complaint with the proposed Second Amended Complaint.

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Washington, DC on January 12, 2018.



Justin Anderson

Exhibit A

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

EXXON MOBIL CORPORATION,

Plaintiff,

v.

ERIC TRADD SCHNEIDERMAN, Attorney General of New York, in his official capacity, and MAURA TRACY HEALEY, Attorney General of Massachusetts, in her official capacity,

Defendants.

No. 17-CV-2301 (VEC) (SN)

EXXONMOBIL'S SECOND AMENDED COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

Exxon Mobil Corporation ("ExxonMobil") brings this action seeking declaratory and injunctive relief against Eric Tradd Schneiderman, the Attorney General of New York and Maura Tracy Healey, the Attorney General of Massachusetts. Attorneys General Schneiderman and Healey have joined together with each other, as well as others known and unknown, in an unlawful agreement to impose their viewpoint on climate change by abusing their law enforcement authority under state law. To coerce ExxonMobil into embracing their viewpoint on a matter of public concern, the Attorneys General launched pretextual investigations of ExxonMobil in clear violation of the First Amendment. Attorney General Schneiderman issued multiple subpoenas to ExxonMobil, and Attorney General Healey issued a civil investigative demand ("CID") to ExxonMobil that went so far as to name the groups promoting a viewpoint the Attorneys General oppose. ExxonMobil seeks an injunction barring these unconstitutional investigations and a declaration that they violate ExxonMobil's rights.

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INTRODUCTION

1. Frustrated by the federal government's apparent inaction on climate change, Attorneys General Schneiderman and Healey (the "Attorneys General") entered into a conspiracy with each other, as well as a coalition of special interests (including investors in alternative energy companies) and other state attorneys general, to abuse law enforcement powers as a means of imposing their viewpoint on climate change. Acting independently and as members of the conspiracy, the Attorneys General have targeted ExxonMobil with pretextual investigations intended to cleanse the public square of alternative viewpoints on a matter of public policy.

2. The conspiracy first surfaced publicly when Attorney General Schneiderman hosted a press conference in New York City on March 29, 2016,[1] with former Vice President and renewable energy investor Al Gore as a featured speaker.[2] Attorney General Schneiderman declared there was "no dispute" about climate policy, only "confusion, and confusion sowed by those with an interest in profiting from the confusion and creating misperceptions in the eyes of the American public that really need to be cleared up."[3] Attorney General Healey pledged that those who purportedly "deceived" the public—by disagreeing with her about climate policy—"should be, must be, held accountable."[4] Claude Walker, the Attorney General of the Virgin Islands, concluded, "We have to look at renewable energy. That's the only solution."[5] All three

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1 *See* Paragraphs 24 to 37 below.

2 A transcript of the AGs United for Clean Power Press Conference, held on March 29, 2016, was prepared by counsel based on a video recording of the event, which is available at http://www.ag.ny.gov/press-release/ag-schneiderman-former-vice-president-al-gore-and-coalition-attorneys-general-across. A copy of this transcript is attached as Exhibit B and is incorporated by reference.

3 Ex. B at App. 10.

4 Ex. B at App. 20.

5 Ex. B at App. 24.

attorneys general issued burdensome subpoenas or investigatory document demands to ExxonMobil in late 2015 or early 2016 as part of investigations purportedly justified by the thinnest of pretexts.

3. That press conference and the related investigations were the result of years of planning and lobbying by special interests.[6] For nearly a decade, climate change activists and certain plaintiffs' attorneys have sought to obtain the confidential records of energy companies as a means of pressuring those companies to change their policy positions. A 2012 workshop examined ways to obtain the internal documents of companies like ExxonMobil for the purpose of "maintaining pressure on the industry that could eventually lead to its support for legislative and regulatory responses to global warming."[7] The attendees at that workshop concluded that "a single sympathetic state attorney general might have substantial success in bringing key internal documents to light."[8]

4. In the years that followed, participants in the 2012 workshop lobbied state attorneys general to launch investigations of energy companies to further political objectives having nothing to do with law enforcement. In January 2016, those special interests met at the offices of the Rockefeller Family Fund in New York to discuss the "[g]oals of an Exxon campaign," which included to "delegitimize [it] as a political actor" and to "force officials to disassociate themselves from Exxon."[9] The attendees also brainstormed how to use "AGs" to "get[] discovery" and "creat[e] scandal."[10]

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6 *See* Paragraphs 38 to 61 below.
7 Ex. C at App. 56.
8 *Id.* at 40.
9 Ex. D at App. 67.
10 Ex. S1 at App. 480.

5. Those special interests were also lurking in the background at the Attorneys General's press conference. Before the state attorneys general took the stage, members of their respective staffs attended presentations on the "imperative of taking action now on climate change" and "climate change litigation" that were delivered by the architects of the 2012 workshop to abuse state law enforcement power to shape public discourse on climate change.[11]

6. The Attorneys General recognized that the behind-the-scenes involvement of these individuals could expose the special interests promoting their investigations and the bias underlying their deployment of law enforcement resources for partisan ends. When one of the 2012 workshop attendees asked Attorney General Schneiderman's office what he should tell a reporter if asked about his involvement in the press conference, Lemuel Srolovic, Chief of the Environmental Protection Bureau, asked that he not confirm his attendance.[12]

7. These so-called investigations amount to nothing more than unlawful viewpoint discrimination. That is why the Attorneys General have lurched from one pretextual justification to another as they struggled to justify their actions.[13] When Attorney General Schneiderman launched his investigation, he claimed to be investigating ExxonMobil's scientific research in the 1970s and 1980s.[14] Later, during one of Attorney General Schneiderman's unprecedented press briefings on his "investigation" of ExxonMobil, he conceded that he had abandoned his original inquiry into ExxonMobil's historical scientific research and was instead pursuing a new theory of

[11] Ex. E at App. 70.
[12] Ex. F at App. 80.
[13] *See* Paragraphs 92 to 94 below.
[14] Ex. K at 115; Ex. L at 123.

investor fraud based on proved reserves that he incorrectly believed were at risk of being "stranded."[15] As it enters its third year, the investigation now purports to focus on asset impairment.[16] These shifts further demonstrate that Attorney General Schneiderman is simply searching for a legal theory—any legal theory—to continue his efforts to pressure ExxonMobil and intimidate one side of a public policy debate.[17]

8. The Attorneys General must devise creative legal arguments because during the relevant limitations periods (which do not exceed six years), ExxonMobil has widely and publicly confirmed[18] that it "recognize[s] that the risk of climate change and its potential impacts on society and ecosystems may prove to be significant."[19] ExxonMobil has also publicly supported the Paris accords and advocated for a tax on carbon emissions since 2009.[20] Moreover, in conducting its business, ExxonMobil addresses the potential for future climate policy by estimating a proxy cost of carbon, which seeks to reflect potential policies governments may employ related to the exploration, development, production, transportation or use of carbon-based fuels.[21] This cost, which in some regions may approach $80 per ton by 2040, has been included in ExxonMobil's Outlook for Energy for several years.[22] Further, ExxonMobil requires all of its business lines to include, where appropriate, an estimate of greenhouse gas-related

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15 Ex.MM at 351.
16 Ex. S2 at App. 482.
17 *See* Paragraphs 92 to 94 below.
18 *See* Paragraph 120 below.
19 Ex. G at App. 93; *see also* Ex. H at App. 103 ("Because the risk to society and ecosystems from rising greenhouse gas emissions could prove to be significant, strategies that address the risk need to be developed and implemented.").
20 Ex. T at App. 182.
21 Ex. T at App. 190.
22 *Id.*

emissions costs in their economics when seeking funding for capital investments.[23] The Attorneys General's proffered theories of fraud rest uneasily with these disclosures.

9. At bottom, the Attorneys General's investigations have nothing to do with legitimate law enforcement goals and everything to do with an unconstitutional effort to curtail free speech rights based on viewpoint bias. Regulating debate over public policy, even when styled as clearing up "confusion" and "deception," is not a legitimate law enforcement function. That is why fifteen other state attorneys general openly criticized Attorneys General Schneiderman, Healey, and Walker for misusing their law enforcement power to pursue a politicized investigation designed to suppress the free exercise of First Amendment rights.[24]

10. Defending its rights against this improper exercise of state power, ExxonMobil filed a civil rights action against Attorney General Walker in Texas state court and the instant action against the Attorneys General in federal court. Attorney General Walker withdrew his subpoena shortly after ExxonMobil's challenge was removed to federal court. The strength of ExxonMobil's prima facie showing against the Attorneys General in the instant action was so powerful that Judge Ed Kinkeade expressed concern that their investigations were means "to further their personal agendas by using the vast power of the government to silence the voices of all those who disagree with them."[25]

11. Through their official misconduct, the Attorneys General have deprived, and will continue to deprive, ExxonMobil of its rights under the United States

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[23] *Id.*

[24] ECF No. 63; ECF No. 192-3; Ex. Y at App. 227; Ex. QQ at App. 435; Ex. RR at App. 438; Ex. SS at App. 441.

[25] Order Transferring Case to the Southern District of New York, *Exxon Mobil Corp.* v. *Healey*, No. 4:16-CV-00469 (N.D. Tex. March 29, 2017) (ECF No. 180).

Constitution, the Texas Constitution, and the common law. ExxonMobil therefore seeks a declaration that the Attorneys General's investigations violate its rights under Articles One and Six of the United States Constitution; the First, Fourth, and Fourteenth Amendments to the United States Constitution; Sections Eight, Nine, and Nineteen of Article One of the Texas Constitution; and that the issuance of the subpoena and CID constitutes an abuse of process under the common law. ExxonMobil also seeks an injunction barring further continuation of the investigations. Absent an injunction, ExxonMobil will suffer imminent and irreparable harm for which there is no adequate remedy at law.

PARTIES

12. ExxonMobil is a public, shareholder-owned energy company incorporated in New Jersey with principal offices in the State of Texas. ExxonMobil is headquartered and maintains all of its central operations in Texas.

13. Defendant Eric Tradd Schneiderman is the Attorney General of New York. He is sued in his official capacity.

14. Defendant Maura Tracy Healey is the Attorney General of Massachusetts. She is sued in her official capacity.

JURISDICTION AND VENUE

15. This Court has subject matter jurisdiction over this action pursuant to Sections 1331 and 1367 of Title 28 of the United States Code. Plaintiff alleges violations of its constitutional rights in violation of Sections 1983 and 1985 of Title 42 of the United States Code. Because those claims arise under the laws of the United States, this Court has original jurisdiction over them. 28 U.S.C. § 1331. Plaintiff also alleges related state law claims that derive from the same nucleus of operative facts. Each of Plaintiff's state

law claims—like its federal claims—is premised on statements by Attorneys General Schneiderman and Healey at the press conference and during the course of their investigations, their issuance of subpoenas and a CID, the demands made therein, and other documentary evidence of their intention to pressure ExxonMobil to change its perceived position on climate policy. This Court therefore has supplemental jurisdiction over those claims. 28 U.S.C. § 1367(a).

16. Venue is proper within this District pursuant to Section 1391(b) of Title 28 of the United States Code because a substantial part of the events giving rise to the claims occurred in the Southern District of New York.[26] The March 29, 2016 press conference in which the Attorneys General described their intent to use law enforcement powers to alter public perception about climate policy was held in this District.

FACTS

A. Attorney General Schneiderman Opens His Investigation of ExxonMobil with a Press Leak Followed by a Television Interview.

17. In November 2015, ExxonMobil received Attorney General Schneiderman's subpoena at its corporate headquarters in Irving, Texas.[27] Within hours, the press reported the subpoena's issuance and its contents. According to an article in *The New York Times*, the subpoena "demand[ed] extensive financial records, emails and other documents," and the "focus" of the investigation was on "the company's own long running scientific research" on climate change.[28] The article identified as sources "people with knowledge of the investigation," all of whom "spoke on the condition of

[26] This conclusion was reached by Northern District of Texas Judge Ed Kinkeade when he transferred this action to the Southern District of New York. (ECF. No. 180.)

[27] Ex. I at App. 108. Shortly after Attorney General Schneiderman issued his first subpoena, his office confirmed, in writing, that "by producing documents in accordance with our discussions prior to the return date as extended, Exxon is not waiving any right to seek to quash or otherwise object to the subpoena." Ex. S55 at App. 1138.

[28] Ex. A at App. 2.

anonymity saying they were not authorized to speak publicly about investigations."[29] To state the obvious, ExxonMobil did not alert *The New York Times* or any other media to the subpoena's existence or its contents.

18. This press leak was unsettling. It is customary for law enforcement officials to maintain confidentiality of their investigations, both to protect the integrity of the investigative process and to avoid unfair prejudice to those under investigation. Indeed, Attorney General Schneiderman himself has recognized it is inappropriate to "comment on ongoing investigations."[30] But Attorney General Schneiderman's investigation of ExxonMobil has been conducted with a marked disregard for traditional concerns about confidentiality or unfair prejudice. Before ExxonMobil had even accepted service of the subpoena, it had received multiple media inquiries about the subpoena and could read about the investigation in online news accounts.[31]

19. Within a week of issuing the subpoena, Attorney General Schneiderman appeared on a *PBS NewsHour* segment, entitled "Has Exxon Mobil misle[d] the public about its climate change research?"[32] During that appearance, Attorney General Schneiderman described the focus of his investigation on ExxonMobil's purported decision to "shift[] [its] point of view" and "change[] tactics" on climate change after "being at the leadership of doing good scientific work" on the issue "[i]n the 1980s."[33] Attorney General Schneiderman said his probe extended to ExxonMobil's "funding [of] organizations."[34] While he did not refer to them expressly as his political adversaries, he

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29 *Id.* at App. 2–3.
30 Ex. S62 at App. 1316.
31 *See, e.g.,* Ex. A at App. 2–7; Ex. J at App. 110–112.
32 Ex. K at App. 114.
33 *Id.* at App. 115.
34 *Id.* at App. 116.

derided them as "climate change deniers" and "climate denial organizations."[35] Those organizations included the "American Enterprise Institute, . . . the American Legislative Exchange Council, . . . [and the] American Petroleum Institute."[36]

20. Renewable energy was another focus of the interview. Attorney General Schneiderman said he was "concerned about" ExxonMobil's purported "overestimating the costs of switching to renewable energy," but he did not explain how any supposed error in that estimate could conceivably constitute a fraud or mislead any consumer.[37]

21. Attorney General Schneiderman did not discuss ExxonMobil's oil and gas reserves or its assets at all during this interview.

22. Later that month at an event sponsored by *Politico* in New York, Attorney General Schneiderman said that ExxonMobil appeared to be "doing very good work in the 1980s on climate research" but its "corporate strategy seemed to shift" later.[38] Attorney General Schneiderman claimed that the company had funded organizations that he labeled "aggressive climate deniers," again specifically naming his perceived political opponents at the American Enterprise Institute, the American Legislative Exchange Council, and the American Petroleum Institute.[39] Attorney General Schneiderman admitted that his "investigation" of ExxonMobil was merely "one aspect" of his office's efforts to "take action on climate change," commenting that society's failure to address climate change would be "viewed poorly by history."[40]

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35 *Id.* at App. 116, 118.
36 *Id.* at App. 116.
37 *Id.*. at App. 117.
38 Ex. L at App. 123.
39 *Id.*
40 *Id.* at App. 124.

23. After this initial flurry of statements to the press, relative quiet followed, and ExxonMobil attempted in good faith to produce records demanded by the subpoena. It provided Attorney General Schneiderman with documents related to its historical research on global warming and climate change.

B. The Attorneys General Pledge to Use Law Enforcement Tools to Impose Their Viewpoint on Climate Policy.

24. The playing field changed on March 29, 2016, when Attorney General Schneiderman hosted a press conference in New York City. Calling themselves the "AGs United For Clean Power" and the "Green 20," Attorneys General Schneiderman and Healey were joined by other state attorneys general and Al Gore to announce their plan to take "progressive action to address climate change" by investigating ExxonMobil.[41] Attorneys general or staff members from over a dozen other states were in attendance, as was Attorney General Walker of the Virgin Islands.

25. Expressing dissatisfaction with the supposed "gridlock in Washington" regarding climate change legislation, Attorney General Schneiderman said that the coalition had to work "creatively" and "aggressively" to respond to "th[e] most pressing issue of our time," namely, the need to "preserve our planet and reduce the carbon emissions that threaten all of the people we represent."[42]

26. Attorney General Healey agreed, opining that "there's nothing we need to worry about more than climate change."[43] She considered herself to have "a moral obligation to act" to remedy what she described as a threat to "the very existence of our

[41] Ex. M at App 127.
[42] Ex. B at App. 9–11.
[43] *Id.* at App. 20.

planet," and she vowed to take "quick, aggressive action" to "address climate change and to work for a better future."[44]

27. Echoing those themes, Attorney General Walker stated that "the American people . . . have to do something transformational" because "[w]e cannot continue to rely on fossil fuel."[45] In private communications with other members of the Green 20 coalition, Attorney General Walker expressed his hope that the coalition's efforts would "identify[] other potential litigation targets" and "increase our leverage" against ExxonMobil to replicate or improve on an $800 million settlement he had previously obtained against another energy company.[46]

28. For the Green 20, the public policy debate on climate change was over and dissent was intolerable. Attorney General Schneiderman declared that he had "heard the scientists" and "kn[e]w what's happening to the planet."[47] To him, there was "no dispute but there is confusion, and confusion sowed by those with an interest in profiting from the confusion and creating misperceptions in the eyes of the American public that really need to be cleared up."[48] Schneiderman has long derided those who do not share his viewpoint on climate policy. In a September 2014 speech, Schneiderman noted the importance of "challenging those who refuse to acknowledge that climate change is real" and that "it is up to us to do the transformational work needed to enable everyone to clearly see that climate change is real, that all of us are feeling its effects right now, and that we can and must address it together."[49] And in the same speech, Attorney General

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44 *Id.* at App. 20–21.
45 *Id*. at App. 24.
46 Ex. N at App. 131, 133–134.
47 Ex. B at App. 10.
48 *Id.*
49 Ex. S5 at App. 530.

Schneiderman revealed his belief that his prosecutorial powers should be used in a "creative" fashion for the political end of "chang[ing] public awareness" on the issue of climate change, noting "we all need to be activists."[50]

29. According to Attorney General Healey, "[p]art of the problem has been one of public perception," causing "many to doubt whether climate change is real and to misunderstand and misapprehend the catastrophic nature of its impacts."[51] She promised that those who "deceived" the public—by disagreeing with her about climate change—"should be, must be, held accountable."[52] Mr. Gore agreed, denouncing those he accused of "deceiving the American people . . . about the reality of the climate crisis and the dangers it poses to all of us."[53]

30. What the Attorneys General derided as "confusion," "misunderstand[ing]," and "misapprehen[sion]" is the very speech that the First Amendment safeguards as protected political speech. It is not the proper role of government to limit the free flow of such ideas, but the Green 20 was unmistakable in its belief that free speech constituted "part of the problem" their actions were intended to address.

31. The Attorneys General also embraced the renewable energy industry, in which Mr. Gore is a prominent investor and promoter, as the only legitimate response to climate change. Attorney General Schneiderman said, "We have to change conduct" to "mov[e] more rapidly towards renewables."[54] Attorney General Healey promised to

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50 *Id.* at 525.
51 Ex. B at App. 20.
52 *Id.*
53 *Id.* at App. 14.
54 *Id.* at App. 27–28.

"speed our transition to a clean energy future . . . ."[55] According to Attorney General Walker, "[w]e have to look at renewable energy. That's the only solution."[56] Mr. Gore urged the coalition of state attorneys general to investigate his business competitors for "slow[ing] down this renewable revolution" by "trying to convince people that renewable energy is not a viable option."[57]

32. The assembled attorneys general had nothing but praise for Mr. Gore, whose financial interests aligned with their political agenda. Attorney General Schneiderman enthused that "there is no one who has done more for this cause" than Mr. Gore, who recently had been "traveling internationally, raising the alarm," and "training climate change activists."[58] Equally embracing the public support of Mr. Gore, Attorney General Healey praised him for explaining so "eloquently just how important this is, this commitment that we make," and she thanked him for his "inspiration" and "affirmation."[59] Virgin Islands Attorney General Walker hailed the former Vice President as one of his "heroes."[60]

33. In an effort to legitimize what the attorneys general were doing, Mr. Gore cited perceived inaction by the federal government as the justification for action by the Green 20. He observed that "our democracy's been hacked . . . but if the Congress really would allow the executive branch of the federal government to work, then maybe this would be taken care of at the federal level."[61] Reading from the same script, Attorney General Schneiderman pledged that the Green 20 would "step into th[e] [legislative]

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55 *Id.* at App. 21.
56 *Id.* at App. 24.
57 *Id.* at App. 17.
58 *Id.* at App. 13.
59 *Id.* at App. 20.
60 *Id.* at App. 23.
61 *Id.* at App. 17.

breach" created by this alleged federal inaction.[62] He then showed that his subpoena was a tool for achieving his political goals:

> We know that in Washington there are good people who want to do the right thing on climate change but everyone from President Obama on down is under a relentless assault from well-funded, highly aggressive and morally vacant forces that are trying to block every step by the federal government to take meaningful action. So today, we're sending a message that, at least some of us—actually a lot of us—in state government are prepared to step into this battle with an unprecedented level of commitment and coordination.[63]

34. Attorney General Schneiderman linked the coalition's political efforts to his investigation of ExxonMobil, reminding the audience that he "had served a subpoena on ExxonMobil" to investigate "theories relating to consumer and securities fraud."[64] He also suggested that ExxonMobil faced a presumption of guilt in his office, arguing that ExxonMobil had been "using the best climate models" to determine "how fast the sea level is rising" and to "drill[] in places in the Arctic where they couldn't drill 20 years ago" while telling "the public for years that there were no 'competent models,' . . . to project climate patterns, including those in the Arctic."[65] Attorney General Schneiderman went on to suggest there was something illegal in ExxonMobil's alleged support for "organizations that put out propaganda denying that we can predict or measure the effects of fossil fuel on our climate, or even denying that climate change was happening."[66]

35. Attorney General Healey was equally explicit in her prejudgment of ExxonMobil. She stated that there was a "troubling disconnect between what Exxon

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62 *Id.* at App. 11.
63 *Id.* at App. 12.
64 *Id.* at App. 11.
65 *Id.*
66 *Id.*

knew, what industry folks knew, and what the company and industry chose to share with investors and with the American public."[67] Those conclusions were announced weeks before she even issued the CID to ExxonMobil.[68]

36. The political motivations articulated by Attorneys General Schneiderman, Healey, and Walker, Mr. Gore, and the other press conference attendees struck a discordant note with those who rightfully expect government attorneys to conduct themselves in a neutral and unbiased manner. The overtly political tone of the conference even prompted one reporter to ask whether the press conference and the investigations were "publicity stunt[s]."[69]

37. Even some members of the coalition were apprehensive about the expressly political focus of its ringleader. Attorney General Schneiderman's office circulated a draft set of "Principles" for the "Climate Coalition of Attorneys General" that included a "[p]ledge" to "work together" to enforce laws "that require progressive action on climate change."[70] Recognizing the overtly political nature of that pledge, an employee of the Vermont Attorney General's Office wrote: "We are thinking that use of the term 'progressive' in the pledge might alienate some. How about 'affirmative,' 'aggressive,' 'forceful' or something similar?"[71]

C. In Closed-Door Meetings, Private Interests Urge Abusing State Power.

38. The impropriety of the statements made by Attorneys General Schneiderman and Healey and the other members of the Green 20 at the press conference is likely surpassed by what they said behind closed doors.

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67 *Id.* at App. 20.
68 Ex. II at App. 286.
69 Ex. B at App. 25.
70 Ex. M at App. 127.
71 *Id.* at App. 126.

39. During the morning of the press conference, the attorneys general (or their respective staffs) attended two presentations. Those presentations were not announced publicly, and they were not open to the press or general public. The identity of the presenters and the titles of the presentations, however, were later released by the State of Vermont in response to a request by a third party under that state's Freedom of Information Act.

40. The first presenter was Peter Frumhoff, the Director of Science and Policy for the Union of Concerned Scientists.[72] His subject was the "imperative of taking action now on climate change."[73]

41. According to the Union of Concerned Scientists, those who do not share its views about climate change and responsive policy make it "difficult to achieve meaningful solutions to global warming."[74] It accuses "[m]edia pundits, partisan think tanks, and special interest groups" of being "contrarians," who "downplay and distort the evidence of climate change, demand policies that allow industries to continue polluting, and attempt to undercut existing pollution standards."[75]

42. Frumhoff has been targeting ExxonMobil since at least 2007. In that year, Frumhoff contributed to a publication issued by the Union of Concerned Scientists, titled "Smoke, Mirrors, and Hot Air: How ExxonMobil Uses Big Tobacco's Tactics to Manufacture Uncertainty on Climate Science."[76] This essay brainstormed strategies for

[72] Ex. O at App. 138.
[73] Ex. E at App. 70.
[74] Ex. P at App. 146.
[75] *Id.* at App. 146–47.
[76] Ex. Q at App. 160, 163.

"[p]utting the [b]rakes" on ExxonMobil's alleged "[d]isinformation [c]ampaign" on climate change.[77]

43. Matthew Pawa hosted the second presentation on the topic of "climate change litigation."[78] Pawa previously sued ExxonMobil and 23 other energy companies for allegedly contributing to global warming and flooding.[79] Mr. Pawa had hoped the lawsuit would serve as "a potentially powerful means to change corporate behavior."[80] The court rebuffed Mr. Pawa's gambit, however, finding that the regulation of greenhouse gas emissions is "a political rather than a legal issue that needs to be resolved by Congress and the executive branch rather than the courts."[81]

44. Frumhoff and Pawa have sought for years to initiate and promote litigation against energy companies in the service of their political agenda and for private profit. In June 2012, a collection of special, private interests gathered in La Jolla, California, to participate in a "Workshop on Climate Accountability, Public Opinion, and Legal Strategies."[82] Frumhoff and Naomi Oreskes, then a professor at the University of California, San Diego, "conceived" of this workshop and invited Pawa as a featured speaker.[83] The workshop's goal was to consider "the viability of diverse strategies, including the legal merits of targeting carbon producers (as opposed to carbon emitters) for U.S.-focused climate mitigation."[84] During the conference, attendees accused energy companies, including ExxonMobil, of "attempting to manufacture uncertainty about

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77 *Id.* at App. 166.
78 Ex. E at App. 70.
79 *Native Vill. of Kivalina* v. *ExxonMobil Corp.*, 663 F. Supp. 2d 863, 869 (N.D. Cal. 2009), *aff'd*, 696 F.3d 849 (9th Cir. 2012).
80 Ex. C at App. 41.
81 *Id.*
82 *Id.* at App. 30.
83 *Id*. at App. 41.
84 *Id.* at App. 33.

global warming,"[85] and they discussed a wide variety of legal strategies to combat the industry's alleged "efforts to defeat action on climate change."[86]

45. The 2012 workshop's attendees discussed at considerable length "Strategies to Win Access to Internal Documents" of energy companies like ExxonMobil.[87] Many participants noted that "pressure from the courts offers the best current hope for gaining the energy industry's cooperation in converting to renewable energy."[88] In addition, "lawyers at the workshop" suggested that "a single sympathetic state attorney general might have substantial success in bringing key internal documents to light."[89] They also saw civil litigation as a vehicle for accomplishing their goals, with one commentator observing, "[e]ven if your ultimate goal might be to shut down a company, you still might be wise to start out by asking for compensation for injured parties."[90] The conference's attendees were "nearly unanimous" regarding "the importance of legal actions, both in wresting potentially useful internal documents from the fossil fuel industry and, more broadly, *in maintaining pressure on the industry that could eventually lead to its support for legislative and regulatory responses to global warming*."[91]

46. Oreskes, Frumhoff, and Pawa—key architects of the La Jolla strategy—encouraged the Attorneys General to implement their plan of imposing burdens on the energy industry to coerce it to adopt their climate agenda. In June 2015, Oreskes met with New York Attorney General Eric Schneiderman to discuss the purported "history of

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85 *Id.* at App. 34–35.
86 *Id.* at App. 35.
87 *Id*. at App. 40–41, 56.
88 *Id.* at App. 56–57.
89 *Id.* at App. 40.
90 *Id.* at App. 42.
91 *Id.* at App. 56 (emphasis added).

misinformation" of the energy industry, a theme she has been promoting since at least 2010.[92] Oreskes and members from Frumhoff's Union of Concerned Scientists attended a similar meeting in Boston with the staff of attorneys general offices from a number of states.[93] At that meeting, Oreskes noted that there were "factual presentations about climate science, history of climate disinformation and also a presentation by Sharon Eubanks who had led the US Department of [J]ustice prosecution of tobacco industry under the RICO statues."[94]

47. In July 2015—just a few months before the New York Attorney General commenced his investigation—Frumhoff boasted to fellow activists that he was exploring "state-based approaches to holding fossil fuel companies legally accountable" and anticipated "a strong basis for encouraging state (e.g., AG) action forward."[95] Even after the press conference, Frumhoff continued to provide support and counsel to the Attorneys General in this unlawful enterprise.[96]

48. During this time, Pawa implemented another strategy in the La Jolla playbook—encouraging municipalities to commence public nuisance litigation against energy companies like ExxonMobil. Specifically, in March 2015, Pawa sent a legal memorandum encouraging California to pursue public nuisance litigation against ExxonMobil and other energy companies to NextGen America, an organization founded by California billionaire Tom Steyer to promote his political agenda.[97] In that memorandum, Pawa claimed "to know that certain fossil fuel companies (most

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92 Ex. S7 at App. 546; Oreskes is the co-author of *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (2010).
93 *Id.* at App. 544.
94 *Id.* at App. 546.
95 Ex. S8 at App. 548.
96 Ex. S9 at App. 551.
97 Ex. S10 at App. 553; Ex. S11 at App. 555.

notoriously ExxonMobil), have engaged in a campaign and conspiracy of deception and denial on global warming."[98] Acknowledging the ulterior purpose motivating his proposed litigation against energy companies, Pawa wrote, "simply proceeding to the discovery phase of a global warming case would be significant . . . . Just as obtaining such documents gave the Tobacco litigation an unstoppable momentum, here too obtaining industry documents would be a remarkable achievement that would advance the case and the cause."[99]

49. Consistent with Pawa's memorandum, a number of California municipalities filed lawsuits in July 2017, asserting public nuisance claims against ExxonMobil and other energy companies.[100] Pawa represents San Francisco and Oakland, and, as public records released in December 2017 show, his firm stands to gain a multi-billion dollar contingency fee as his agreement with the City of San Francisco—released through public records requests—entitles his firm to 23.5% of any net monetary recovery.[101]

50. It is no surprise that Pawa sent his legal strategy for California to Steyer, who has repeatedly encouraged the federal government and state attorneys general to investigate ExxonMobil.[102] Steyer also has long bankrolled campaigns promoting the policies favored by the Attorneys General.[103]

51. Evidence suggests that Attorney General Schneiderman communicated with Steyer about campaign support in connection with his investigation of

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98 Ex. S12 at App. 567.
99 *Id.* at App. 573.
100 Ex. S13 at App. 577.
101 Ex. S14 at App. 587.
102 Ex. S16 at App. 611; Ex. S17 at App. 615 (job listing by Fahr LLC, an organization owned by Tom Steyer).
103 Ex. S19 at App. 649; *see also* Ex. S20 at App. 653; Ex. S21 at App. 660.

ExxonMobil.[104] Attorney General Schneiderman's office emailed Steyer's scheduler, Erin Suhr, to follow up "on conversation re: company specific climate change information" a mere five days after it subpoenaed ExxonMobil's climate change research.[105] In March 2016, Attorney General Schneiderman also allegedly tried to arrange a meeting with Steyer. The *New York Post* reports that this communication reads, "Eric Schneiderman would like to have a call with Tom regarding support for his race for governor . . . regarding Exxon case."[106]

52. In January 2016, Pawa and a group of climate activists, including La Jolla participant Sharon Eubanks, met at the Rockefeller Family Fund offices to discuss the "[g]oals of an Exxon campaign."[107] The goals included:

- To establish in [the] public's mind that Exxon is a corrupt institution that has pushed humanity (and all creation) toward climate chaos and grave harm.
- To delegitimize [ExxonMobil] as a political actor.
- To force officials to disassociate themselves from Exxon, their money, and their historic opposition to climate progress, for example by refusing campaign donations, refusing to take meetings, calling for a price on carbon, etc.
- To drive divestment from Exxon.
- To drive Exxon & climate into [the] center of [the] 2016 election cycle.[108]

This agenda to restrict and impair ExxonMobil's freedoms of speech and association cannot be legitimate objectives of any bona fide government-directed investigation or litigation.

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104 Ex. S22 at App. 664.
105 *Id.* at App. 666.
106 Ex. S24 at App. 674.
107 Ex. D at App. 67.
108 *Id.*; *see also* Ex. U at App. 192–94.

53. At the meeting, the activists also discussed "the main avenues for legal actions & related campaigns," including "AGs," "DOJ," and "Torts."[109] Among these options, they considered which had the "best prospects" for (i) "successful action," (ii) "getting discovery," and (iii) "creating scandal."[110]

54. Shortly after this meeting, Pawa attempted to implement the "AGs" plan. At least twice, he emailed the Vermont Attorney General's Office news articles criticizing ExxonMobil for purportedly deceiving the public about the effects of climate change, including an opinion piece written by a member of the Rockefeller family in which she explains why she donated her inherited ExxonMobil stock to support efforts to combat global warming.[111]

55. After the January 2016 meeting, the Rockefeller Family Fund also continued its efforts to "delegitimize" ExxonMobil. In March 2016, the Fund announced that it would divest from all fossil fuel holdings, including ExxonMobil.[112] The Fund singled ExxonMobil out for purportedly "morally reprehensible conduct" and claimed that "the company worked since the 1980s to confuse the public about climate change's march."[113]

56. Public records also reveal that the Rockefeller Family Fund repeatedly communicated with the New York Attorney General's Office about climate change and its investigation of ExxonMobil before the January 2016 meeting. In February 2015, the New York Attorney General's Office exchanged a dozen emails with the Fund

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109 Ex. S1 at App. 479.
110 *Id.* at App. 480.
111 Ex. S25 at App. 677; Ex. S26 at App. 679; Ex. S27 at App 681.
112 Ex. S28 at App. 684.
113 *Id.*

concerning the "activities of specific companies regarding climate change."[114] The Fund's persistent lobbying paid off, which prompted the daughter of a Rockefeller Family Fund's director to announce on Twitter the day after Attorney General Schneiderman issued his subpoena to ExxonMobil that she was "[s]o proud" of her father "for helping make this happen #ExxonKnew."[115] (As her Twitter account shows,[116] the director's daughter worked for Steyer's NextGen, the organization that received Pawa's legal memorandum encouraging government litigation against ExxonMobil and other energy companies in March 2015).[117]

57. Over a year later, in December 2016, the director of the Rockefeller Family Fund finally admitted, after initially denying the connection, that the Fund had financed the so-called investigative journalism that would later provide a pretext for the Attorneys General's improper investigations of ExxonMobil.[118] This supposed investigative journalism by *Inside Climate News* and the *Los Angeles Times*—which the Attorneys General have used as pretextual support for their investigations[119]—selectively interpreted documents ExxonMobil had made publicly available in the archives of the University of Texas-Austin.[120] While the Attorneys General have suggested these documents show ExxonMobil had advance, secret knowledge of climate change decades ago, the documents in fact demonstrate that ExxonMobil's climate research contained

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114 Ex. S29 at App. 688.
115 Ex. S30 at App. 695.
116 *Id*.
117 *See* Paragraph 48.
118 Ex. S31 at App. 704.
119 Attorney General Healey has essentially admitted that this reporting spurred her investigation and has long cited it to support her claim that the investigation is valid. *See* ECF No. 43. Attorney General Schneiderman has not so directly cited this reporting, but it was reported in late 2015 that these articles prompted the New York investigation. Ex. L at App. 123.
120 Ex. S33 at App. 720; Ex. S59 at App. 1293–94 (*InsideClimate News* admitting ExxonMobil's projections were in the "mid-range" of what scientists predicted).

myriad uncertainties and was aligned with the research of scientists at leading institutions at the time, including scientists at the Massachusetts Institute of Technology, the National Academy of Science and the Environmental Protection Agency.[121]

58. The Rockefeller Family Fund also acknowledged that, before the Attorneys General commenced their investigations, it had "informed [unnamed] state attorneys general of [its] concern" about ExxonMobil's statements on climate change and was "encouraged by [Attorney General] Schneiderman's interest."[122] On January 8, 2018, *New York Magazine* reported that the Rockefeller Family Fund director met with Attorney General Schneiderman's office in 2015 specifically to discuss ExxonMobil's purported climate deception and liability under the Martin Act.[123]

59. The investigations by the New York and Massachusetts Attorneys General and the Green 20 press conference represented the culmination of Frumhoff, Pawa, Oreskes, Steyer, the Rockefeller Family Fund, and other's collective efforts to enlist state law enforcement officers to join them in a quest to coerce political opponents to adopt preferred policy responses to climate change and to obtain documents for private lawsuits.

60. The attorneys general in attendance at the press conference understood that the participation of Frumhoff and Pawa, if reported, could expose the private, financial, and political interests behind the announced investigations. The day after the conference, a reporter from *The Wall Street Journal* contacted Pawa.[124] Before

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[121] *See* Ex. S60 at App. 1302; Ex. S3 at App. 494 (EPA Report from 1983 noting the possibility of a 5°C increase by 2100); Ex. S4 at App. 519 (NAS report from 1983 stating that "temperature increases of a couple degrees or so" were projected for the next century).

[122] Ex. S34 at App. 729 (emphasis omitted); *see also* Ex. S35 at App. 740.

[123] Ex. S63 at App. 1333.

[124] Ex. F at App. 80.

responding, Pawa dutifully asked Lemuel Srolovic, Chief of Attorney General Schneiderman's Environmental Protection Bureau, "[w]hat should I say if she asks if I attended?"[125] Mr. Srolovic—the Assistant Attorney General who had sent the New York subpoena to ExxonMobil in November 2015—encouraged Pawa to conceal from the press and the public the closed-door meetings. He responded, "[m]y ask is if you speak to the reporter, to not confirm that you attended or otherwise discuss the event."[126] That same day, Mr. Srolovic followed up with Frumhoff as well and emailed him ExxonMobil's press statement in response to the politically motivated press conference.[127]

61. The press conference, the closed-door meetings with activists, and the activists' long-standing desire to obtain ExxonMobil's "internal documents" as part of a campaign to put "pressure on the industry," inducing it to support "legislative and regulatory responses to global warming,"[128] form the partisan backdrop against which the New York and Massachusetts investigations must be considered.

D. The Attorneys General Attempt to Conceal Their Misuse of Power from the Public.

62. Recognizing the need to avoid public scrutiny, Attorneys General Schneiderman, Healey, and fifteen others entered into an agreement pledging to conceal from the public their activities and communications in furtherance of their political agenda. In April and May 2016, the Green 20 executed a so-called "Climate Change Coalition Common Interest Agreement," which memorialized the twin goals of this illicit

[125] *Id.*
[126] *Id.*
[127] Ex. S36 at App. 755.
[128] Ex. C at App. 40, 56.

enterprise.[129] The first goal listed in the agreement, "limiting climate change," reflected the coalition's focus on politics, not law enforcement.[130] The second goal, "ensuring the dissemination of accurate information about climate change," confirmed the coalition's willingness to violate First Amendment rights to carry out its agenda.[131] They appointed themselves as arbiters of what information is "accurate" as regards climate change and stood ready to use the full arsenal of law enforcement tools at their disposal against those who did not toe their party line.

63. To conceal communications concerning this unconstitutional enterprise from public disclosure, the signatories agreed to maintain the confidentiality of their communications by pledging that, "unless required by law," the parties "shall . . . refuse to disclose" any "(1) information shared in organizing a meeting of the Parties on March 29, 2016, (2) information shared at and after the March 29 meeting . . . and (3) information shared after the execution of this Agreement."[132] Under that agreement, a member of the New York Attorney General's staff has been "acting as a general coordinator for the climate change record requests" under each state's public records requests laws.[133]

64. Attorney General Schneiderman's efforts to conceal records concerning that agreement in response to a public-records request have already resulted in a firm judicial rebuke. The New York Supreme Court recently awarded attorney's fees and costs against the Attorney General for "lack[ing] a reasonable basis" for refusing to

[129] Ex. V at App. 196–214.
[130] *Id.* at App. 196.
[131] *Id.*
[132] *Id.* at App. 196–97
[133] Ex. S37 at 758.

produce documents related to the Common Interest Agreement.[134] Nevertheless, the Attorney General continues to resist requests for communications with the Rockefeller Family Fund related to his investigation of ExxonMobil.[135] At the same time, Schneiderman has bragged that he "has been winning most legal battles . . . despite #Exxon's ongoing efforts to thwart his investigation."[136]

65. Another member of the coalition has gone so far as to concede the political motives behind the coalition's selective disclosures. The Vermont Attorney General's Office admitted that it conducts research into those seeking records about the coalition's activities, and upon learning of the requester's affiliation with "coal or Exxon or whatever," the office "give[s] this some thought . . . before we share information with this entity."[137]

66. The Vermont Attorney General's office has continued to rebuff efforts to turn over information sought through public records requests, including a request for the former Vermont Attorney General's private email communications with the New York Attorney General about his investigation of ExxonMobil.[138] Most glaringly, the former Vermont Attorney General failed to appear for a deposition about his private email use concerning this subject.[139] Even though a Vermont court subsequently ordered the former Attorney General to appear for deposition,[140] the former Attorney General declined to answer a majority of questions when he finally appeared for the deposition.[141]

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134 Ex. S38 at App 764.
135 *See* Ex. S39 at App. 772.
136 Ex. S40 at App. 794.
137 Ex. S41 at App. 804.
138 Ex. S42 at App. 812.
139 Ex. S43 at App. 818.
140 *Id.*
141 Ex. S44 at App. 821.

67. The Vermont Attorney General's Office has also resisted efforts to produce emails that were circulated among climate activists and several state attorneys general's offices, including the offices of the New York and Massachusetts Attorneys General. For example, in one email, a staff member of the New York Attorney General's office circulated to over a dozen other attorneys general's offices an article about the energy industry's purported early knowledge of "CO2's Role in Global Warming."[142]

68. In December 2017, over the objection of the Vermont Attorney General's Office, a Vermont court ordered the release of these and other public records. The public records reveal that, within a month of the March 29 press conference, Pawa and Frumhoff continued to press for state-based investigations and litigations against the energy industry.[143] Mere days after the press conference, Pawa took the lead in mobilizing the coalition of attorneys general and created an email list of "AG Folks" in order to "pass along information that may be of interest to AGs on the issue of our time: climate change."[144]

69. Initially withheld Vermont public records also reveal a draft agenda for a workshop called "Potential State Causes of Action Against Major Carbon Producers: Scientific, Legal and Historical Perspectives" that was co-hosted by Frumhoff's Union of Concerned Scientists in the month following the press conference.[145] "[S]enior staff from state attorneys general offices in nearly a dozen states,"[146] including Massachusetts and New York,[147] attended the workshop which sought to "[c]reate a 'safe space' for a frank

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142 Ex. S45 at App. 823.
143 *Energy & Envtl. Legal Inst. & Free Market Envtl. Law Clinic* v. *Att'y Gen. of Vt.*, No. 349-6-16 Wbcv (Vt. Super. Ct. Dec. 6, 2017).
144 Ex. S46 at App. 830.
145 Ex S47 at App. 832.
146 Ex S48 at App. 838.
147 Ex. S49 at App. 841.

exchange of approaches, ideas, strategies and questions pertaining to potential state causes of action," such as public nuisance claims, "against major carbon producers and the cultural context in which such cases may be brought."[148] Panelists included several climate activists, including Frumhoff, Oreskes, and Sharon Eubanks—an environmental lawyer who has long supported applying the legal strategy against the tobacco industry to litigation against the energy industry.[149] During the workshop, Frumhoff led a panel on "the case for state-based investigations and litigation" and participated in a discussion on "sea level rise and coastal flooding" and how to "trac[e] impacts to carbon producers."[150]

E. Other State Attorneys General Condemn the Investigations as Unlawful.

70. The overtly political nature of the March 29 press conference drew a swift and sharp rebuke from other state attorneys general who criticized the Green 20 for using the power of law enforcement as a tool to muzzle public discourse about climate change. The attorneys general of Alabama and Oklahoma stated that "scientific and political debate" "should not be silenced with threats of criminal prosecution by those who believe that their position is the only correct one and that all dissenting voices must therefore be intimidated and coerced into silence."[151] They emphasized that "[i]t is inappropriate for State Attorneys General to use the power of their office to attempt to silence core political speech on one of the major policy debates of our time."[152]

71. The Louisiana Attorney General similarly observed that "[i]t is one thing to use the legal system to pursue public policy outcomes; but it is quite another to use prosecutorial weapons to intimidate critics, silence free speech, or chill the robust

148 Ex S47 at App. 832.
149 *Id.*
150 *Id.*
151 Ex. X at App. 225.
152 *Id.*

exchange of ideas."[153] Likewise, the Kansas Attorney General questioned the "unprecedented" and "strictly partisan nature of announcing state 'law enforcement' operations in the presence of a former vice president of the United State[s] who, presumably [as a private citizen], has no role in the enforcement of the 17 states' securities or consumer protection laws."[154] The West Virginia Attorney General criticized the attorneys general for "abusing the powers of their office" and stated that the desire to "eliminate fossil fuels . . . should not be driving any legal activity" and that it was improper to "use the power of the office of attorney general to silence [] critics."[155]

72. In addition, on June 15, 2016, attorneys general from thirteen states wrote a letter to their "Fellow Attorneys General," in which they explained that the Green 20's effort "to police the global warming debate through the power of the subpoena is a grave mistake" because "[u]sing law enforcement authority to resolve a public policy debate undermines the trust invested in our offices and threatens free speech."[156] The thirteen attorneys further described the Green 20's investigations as "far from routine" because (i) they "target[] a particular type of market participant," namely energy companies; (ii) the Green 20 had aligned itself "with the competitors of [its] investigative targets"; and (iii) "the investigation implicates an ongoing public policy debate."[157] In conclusion, they asked their fellow attorneys general to "[s]top policing viewpoints."[158]

73. The actions of Defendants and their Green 20 allies caught the eye of Congress. The Committee on Science, Space, and Technology of the United States

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153 Ex. Y at App. 227.
154 Ex. QQ at App. 435.
155 Ex. RR at App. 438–40.
156 Ex. SS at App. 444.
157 *Id.*
158 *Id.* at App. 447.

House of Representatives launched an inquiry into the investigations undertaken by the Green 20.[159] That committee was "concerned that these efforts [of the Green 20] to silence speech are based on political theater rather than legal or scientific arguments, and that they run counter to an attorney general's duty to serve as the guardian of the legal rights of the citizens and to assert, protect, and defend the rights of the people."[160] Perceiving a need to provide "oversight" of what it described as "a coordinated attempt to attack the First Amendment rights of American citizens," the Committee requested the production of certain records and information from the attorneys general.[161] The attorneys general have thus far refused to voluntarily cooperate with the inquiry.[162]

74. After Attorney General Schneiderman refused to turn over documents requested by the House Committee and criticized its "unfounded claims about the NYOAG's motives,"[163] the House Committee issued subpoenas to Attorney General Schneiderman, Attorney General Healey, and eight environmental organizations in order to "obtain documents related to coordinated efforts to deprive companies, nonprofit organizations, scientists and scholars of their First Amendment rights."[164] It further criticized the attorneys general for "hav[ing] appointed themselves to decide what is valid and what is invalid regarding climate change."[165]

75. Several senators urged former United States Attorney General Loretta Lynch to confirm that the Department of Justice is not investigating, and will not investigate, United States citizens or corporations on the basis of their views on climate

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159 Ex. Z at App. 229.
160 *Id.* (internal quotation marks omitted).
161 *Id.* at App. 232.
162 *See, e.g.*, Ex. TT at App. 449; Ex. UU at App. 453.
163 Ex. AA at App. 237.
164 Ex. BB at App. 240.
165 *Id.*

change.[166] The senators observed that the Green 20's investigations "provide disturbing confirmation that government officials at all levels are threatening to wield the sword of law enforcement to silence debate on climate change."[167] The letter concluded by asking Attorney General Lynch to explain the steps she is taking "to prevent state law enforcement officers from unconstitutionally harassing private entities or individuals simply for disagreeing with the prevailing climate change orthodoxy."[168]

F. The Subpoena and the CID Reflect the Improper Political Objectives of the Green 20 Coalition.

76. The twin goals of the Green 20—advancing a political agenda and trammeling constitutional rights in the process—are fully reflected in the subpoenas and the CID themselves. These instruments purport to investigate easily debunked theories, thereby revealing them as nothing more than thinly veiled pretexts for unlawful state action.

The New York Subpoenas

77. Attorney General Schneiderman is authorized to issue a subpoena only if (i) there is "some factual basis shown to support the subpoena";[169] and (ii) the information sought "bear[s] a reasonable relation to the subject matter under investigation and the public purpose to be served."[170] Neither standard is met here.

78. The initial New York subpoena, issued on November 4, 2015, purports to investigate whether ExxonMobil violated New York State Executive Law Article 5, Section 63(12), General Business Law Article 22-A or 23-A and "any related violation,

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166 Ex. DD at App. 248.
167 *Id.*
168 *Id.*
169 *Napatco, Inc.* v. *Lefkowitz*, 43 N.Y.2d 884, 885–86 (1978).
170 *Myerson* v. *Lentini Bros. Moving & Storage Co.*, 33 N.Y.2d 250, 256 (1973).

or any matter which the Attorney General deems pertinent thereto."[171] These statutes have at most a six-year limitations period.[172]

79. During the six-year limitations period, however, ExxonMobil made no statements that could give rise to fraud as alleged in the subpoena. For more than a decade, ExxonMobil has publicly acknowledged that climate change presents significant risks that could affect its business. For example, ExxonMobil's *2006 Corporate Citizenship Report* recognized that "the risk to society and ecosystems from rising greenhouse gas emissions could prove to be significant" and reasoned that "strategies that address the risk need to be developed and implemented."[173] In addition, in 2002, ExxonMobil, along with three other companies, helped launch the Global Climate and Energy Project at Stanford University, which has a mission of "conduct[ing] fundamental research on technologies that will permit the development of global energy systems with significantly lower greenhouse gas emissions."[174]

80. ExxonMobil has also discussed these risks in its public SEC filings. For example, in its 2006 10-K, ExxonMobil stated that "laws and regulations related to . . . risks of global climate change" "have been, and may in the future" continue to impact its operations.[175] Similarly, in its 2015 10-K, ExxonMobil noted that the "risk of climate change" and "current and pending greenhouse gas regulations" may increase its "compliance costs."[176] Long before the six-year statute of limitations period,

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171 Ex. EE at App. 251.
172 *See, e.g.*, *State ex rel. Spitzer* v. *Daicel Chem. Indus., Ltd.*, 840 N.Y.S.2d 8, 11–12 (1st Dep't 2007); *Podraza* v. *Carriero*, 630 N.Y.S.2d 163, 169 (4th Dep't 1995); *State* v. *Bronxville Glen I Assocs.*, 581 N.Y.S.2d 189, 190 (1st Dep't 1992).
173 Ex. H at App. 103.
174 Ex. FF at App. 270.
175 Ex. GG at App. 277–78.
176 Ex. HH at App. 284.

ExxonMobil disclosed and acknowledged the risks that supposedly gave rise to Attorney General Schneiderman's investigation.

81. Notwithstanding that six-year limitations period and the absence of any conduct within that timeframe that could give rise to a statutory violation, the document requests in the subpoena span 39 years and extend to nearly every document ExxonMobil has ever created that in any way concerns climate change. For example, the subpoena demands "[a]ll Documents and Communications" from 1977 to the present, "[c]oncerning any research, analysis, assessment, evaluation, modelling or other consideration performed by You, on Your behalf, or with funding provided by You Concerning the causes of Climate Change."[177]

82. The subpoena includes 10 other similarly sweeping requests, such as (i) a demand for all documents and communications that ExxonMobil has produced since 1977 relating to "the impacts of Climate Change"; and (ii) exemplars of all "advertisements, flyers, promotional materials, and informational materials of any type" that ExxonMobil has produced in the last 11 years concerning climate change.[178] Other requests target Attorney General Schneiderman's perceived political opponents in the climate change debate by demanding ExxonMobil's communications with trade associations and industry groups that seek to promote oil and gas interests.[179]

83. In response to some of these requests, ExxonMobil asserted First Amendment privileges, including in connection with ExxonMobil scientists' participation in non-profit research organizations.

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[177] Ex. EE at App. 257–58 (Request No. 1).
[178] *Id.* at App. 258–59 (Request Nos. 2, 9).
[179] *Id.* at App. 258 (Request No. 6).

84. Moreover, almost all of the sweeping demands in the subpoena reach far beyond conduct bearing any connection to the State of New York. Ten of the eleven document requests make blanket demands for all of ExxonMobil's documents or communications on a broad topic, with no attempt to restrict the scope of production to documents or communications having any connection to New York.[180] Only two of the requests even mention New York.[181] And, while the subpoena seeks ExxonMobil's communications with five named organizations, only one of them is based in New York.[182]

85. After receiving hundreds of thousands of documents from over 100 ExxonMobil custodians in response to its initial subpoena, the New York Attorney General's Office has issued additional subpoenas seeking extensive numbers of documents and testimony from a number of witnesses. When considering ExxonMobil's challenge to one of those subpoenas, New York Supreme Court Justice Barry Ostrager remarked that the New York Attorney General's request for documents went "way beyond proportionality."[183]

86. The New York Attorney General's Office further served five testimonial subpoenas for "fact witnesses" on May 8, 2017, as well as a subpoena that purports to compel the production of documents pertaining to oil and gas reserves and the impairment of assets. Unsatisfied even with the testimony of those witnesses, the New York Attorney General has continued to subpoena additional individuals. On July 18,

[180] *Id.* at App. 258–59 (Request Nos. 1, 10).
[181] *Id.* at App. 259 (Request Nos. 9, 11).
[182] *Id.* at App. 258 (Request No. 6).
[183] Ex. S50 at App. 897.

2017, the Attorney General's Office issued another testimonial subpoena, and on September 14, 2017 the Office served seven more testimonial subpoenas.

The Massachusetts CID

87. Attorney General Healey served the CID on ExxonMobil's registered agent in Suffolk County, Massachusetts, on April 19, 2016. According to the CID, there is "a pending investigation concerning [ExxonMobil's] potential violations of [MASS. GEN. LAWS] ch. 93A, § 2."[184] That statute prohibits "unfair or deceptive acts or practices" in "trade or commerce"[185] and has a four-year statute of limitations.[186] The CID specifies two types of transactions under investigation: ExxonMobil's (i) "marketing and/or sale of energy and other fossil fuel derived products to consumers in the Commonwealth," and (ii) "marketing and/or sale of securities" to Massachusetts investors.[187] The requested documents pertain largely to information related to climate change in the possession of ExxonMobil in Texas where it is headquartered and maintains its principal place of business.

88. ExxonMobil could not have committed the possible offenses that the CID purports to investigate for at least two reasons. First, at no point during the past five years—more than one year before the limitations period began—has ExxonMobil (i) sold fossil fuel derived products to consumers in Massachusetts, or (ii) owned or operated a single retail store or gas station in the Commonwealth.[188] Second, ExxonMobil has not sold any form of equity to the general public in Massachusetts since at least 2011, which

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184 Ex. II at App. 286.
185 MASS. GEN. LAWS ch. 93A, §2(a).
186 MASS. GEN. LAWS ch. 260, § 5A.
187 Ex. II at App. 286.
188 Any service station that sells fossil fuel derived products under an "Exxon" or "Mobil" banner is owned and operated independently. In addition, distribution facilities in Massachusetts, including Everett Terminal, have not sold products to consumers during the limitations period.

is also well beyond the limitations period.[189] In the past decade, ExxonMobil has sold debt only to underwriters outside the Commonwealth, and ExxonMobil did not market those offerings to Massachusetts investors.[190]

89. The CID's focus on events, activities, and records outside of Massachusetts is demonstrated by the items it demands that ExxonMobil search for and produce. For example, the CID demands documents that relate to or support 11 specific statements.[191] None of those statements were made in Massachusetts.[192] The CID also seeks ExxonMobil's communications with 12 named organizations,[193] but only one of these organizations has an office in Massachusetts and ExxonMobil's communications with the other 11 organizations likely occurred outside of Massachusetts. Finally, the CID requests all documents and communications related to ExxonMobil's publicly issued reports, press releases, and Securities and Exchange Commission ("SEC") filings, which were issued outside of Massachusetts,[194] and all documents and communications related to ExxonMobil's climate change research, which also occurred outside of Massachusetts.[195]

90. The absence of any factual basis for investigating ExxonMobil's alleged fraud is glaring, particularly in light of the heavy burden imposed by the CID. Spanning 25 pages and containing 38 broadly worded document requests, the CID unreasonably demands production of essentially any and all communications and documents relating to

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189 Ex. JJ at App. 317.

190 *Id.* This is subject to one exception. During the limitations period, ExxonMobil has sold short-term, fixed-rate notes, which mature in 270 days or less, to institutional investors in Massachusetts, in specially exempted commercial paper transactions. *Id.*; *see* MASS. GEN. LAWS ch. 110A, § 402(a)(10); *see also* 15 U. S. C. § 77c(a)(3).

191 Ex. II at App. 299–300 (Request Nos. 8–11).

192 *Id.* (Request Nos. 8–11).

193 *Id.* at App. 298 (Request No. 5).

194 *Id.* at App. 301–03 (Request Nos. 15–16, 19, 22).

195 *Id.* at App. 297–98, 300–03 (Request Nos. 1–4, 14, 17, 22).

climate change that ExxonMobil has produced or received over the last 40 years. For example, the CID requests all documents and communications "concerning Exxon's development, planning, implementation, review, and analysis of research efforts to study CO_2 emissions . . . and the effects of these emissions on the Climate" since 1976 and all documents and communications concerning "any research, study, and/or evaluation by ExxonMobil and/or any other fossil fuel company regarding the Climate Change Radiative Forcing Effect of" methane since 2010.[196] It also requests all documents and communications concerning papers and presentations given by ExxonMobil scientists since 1976[197] and demands production of ExxonMobil's climate change related speeches, public reports, press releases, and SEC filings over the last 20 years.[198] Moreover, it fails to reasonably describe several categories of documents by, for example, requesting documents related to ExxonMobil's "awareness," "internal consideration," and "decision making" with respect to certain climate change matters.[199]

91. The CID's narrower requests, however, are in some instances more troubling than its overly broad ones. They appear to target groups simply because they hold views with which Attorney General Healey disagrees. All 12 organizations with whom ExxonMobil is directed to produce communications have been identified by environmental advocacy groups as opponents of certain policies addressing climate change or "deniers" of the science in support of climate change.[200] The CID also targets

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196 *Id.* at App. 297, 302 (Request Nos. 1, 17).

197 *Id.* at App. 297–98. (Request Nos. 2–4).

198 *Id.* at App. 299 (Request No. 8 (all documents since April 1, 1997)); *id.* at App. 302–03 (Request No. 22 (all documents since 2006)); *id.* at App. 299–302 (Request Nos. 9–12, 14–16, 19 (all documents since 2010)). The CID also demands the testimony of ExxonMobil officers, directors, or managing agents who can testify about a variety of subjects, including "[a]ll topics covered" in the CID. *Id.* at App. 306 (Schedule B).

199 *Id.* at App. 298–99, 302 (Request Nos. 7–8, 18).

200 *See, e.g.*, Ex. VV at App. 455–57.

statements that are not in accord with the Green 20's preferred views on climate change. These include statements of pure opinion on policy, such as the suggestion that "[i]ssues such as global poverty [are] more pressing than climate change, and billions of people without access to energy would benefit from oil and gas supplies."[201]

G. Attorney General Schneiderman Shifts Investigative Theories in a Search for Leverage over ExxonMobil in a Public Policy Debate.

92. After receiving Attorney General Schneiderman's subpoena, ExxonMobil made a good-faith effort to comply with his request for information about its climate change research in the 1970s and 1980s. ExxonMobil provided his office with well over one million pages of documents, at substantial cost to the Company, with the expectation that a fair and impartial investigation would be conducted. In September 2016, a spokesman for Attorney General Schneiderman stated that ExxonMobil's "historic climate change research" was no longer "the focus of this investigation."[202]

93. Rather than close the investigation, however, Attorney General Schneiderman simply unveiled another theory. As he explained in a lengthy interview published in *The New York Times*, Attorney General Schneiderman focused instead on the so-called "stranded assets theory." His office intended to examine whether ExxonMobil had overstated its oil and gas reserves and assets by not accounting for "global efforts to address climate change" that might require it in the future "to leave enormous amounts of oil reserves in the ground"—*i.e.*, cause the assets to be "stranded."[203] Without offering—or possessing—any supporting evidence whatsoever,

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[201] *See, e.g.*, Ex. II at App. 299–300 (Request No. 9). Further demonstrating that this type of statement is clearly an expression of a policy opinion, an Op-ed appeared in the Wall Street Journal recently making this same argument. Ex. S61 at App. 1311–14.

[202] Ex. KK at App. 321.

[203] Ex. MM at App. 351.

Attorney General Schneiderman inappropriately opined that there "may be massive securities fraud" at ExxonMobil based on its estimation of proved reserves and the valuation of its assets.[204]

94. In a more recent shift in theory, Attorney General Schneiderman has begun a focus on the impairment of long-lived assets.[205]

H. An Investigation of ExxonMobil's Reporting of Oil and Gas Reserves and Assets Is a Thinly Veiled Pretext.

95. Attorney General Schneiderman's decision to investigate ExxonMobil's reserves estimates under a stranded asset theory is particularly egregious because it cannot be reconciled with binding regulations issued by the SEC, which apply strict guidelines to the estimation of proved reserves.

96. Those regulations prohibit companies like ExxonMobil from considering the impact of future regulations when estimating reserves. To the contrary, they require ExxonMobil to calculate its proved reserves in light of "*existing* economic conditions, operating methods, and *government regulations*."[206] The SEC adopted that definition of proved reserves as part of its efforts to provide investors with a "comprehensive understanding of oil and gas reserves, which should help investors evaluate the relative value of oil and gas companies."[207] The SEC's definition of proved oil and gas reserves thus reflects its reasoned judgment about how best to supply investors with information about the relative value of energy companies, as well as its balancing of competing priorities, such as the agency's desire for comprehensive disclosures, that are not unduly

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[204] *Id.*
[205] Ex. S2 at App. 482.
[206] 17 C.F.R. § 210.4–10(a) (emphasis added).
[207] *Modernization of Oil & Gas Reporting*, SEC Release No. 78, File No. S7-15-08, 2008 WL 5423153, at *66 (Dec. 31, 2008).

burdensome, and which investors can easily compare. Attorney General Schneiderman's theory of "massive securities fraud" in ExxonMobil's reported reserves cannot be reconciled with binding SEC regulations about how those reserves must be reported.

97. The same rationale applies to Attorney General Schneiderman's purported investigation of the impairment of ExxonMobil's assets. The SEC recognizes as authoritative the accounting standards issued by the Financial Accounting Standards Board ("FASB").[208] The FASB's rules concerning the impairment of assets require ExxonMobil to "incorporate [its] own assumptions" about future events when deciding whether its assets are impaired.[209] Contravening those rules, the Attorney General's theory requires that ExxonMobil adopt his assumptions about the likelihood of possible future climate change regulations and then incorporate those assumptions into its determination of whether an asset has been impaired. Attorney General Schneiderman cannot hold ExxonMobil liable for complying with federal law.

98. Attorney General Healey's investigation also purports to encompass the same unsound theory of fraud.[210] The decision to embrace this theory speaks volumes about the pretextual nature of the investigations being conducted by Attorneys General Schneiderman and Healey. To read the relevant SEC rules is to understand why ExxonMobil may not account for future climate change regulations when calculating its proved reserves. And to read the applicable accounting standards is to understand why it is impermissible for the Attorneys General to impose their assumptions about the

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[208] *See* Commission Statement of Policy Reaffirming the Status of the FASB as a Designated Private-Sector Standard Setter, 68 Fed. Reg. 23,333–401 (May 1, 2003).

[209] *See* FASB Accounting Standards Codification 360-10-35-30; *see also* Statement of Financial Accounting Standards No. 144 ¶ 17.

[210] Ex. NN at App. 367, 372; ECF. No. 43 ("If substantial portions of Exxon's vast fossil fuel reserves are unable to be burned due to carbon dioxide emissions limits put in place to stabilize global average temperature, those assets—valued in the billions—will be stranded, placing shareholder value at risk.").

financial impact of possible future climate change regulations on companies that are required to develop their own independent assumptions. The Attorneys General's claims that they are conducting a bona fide investigation premised on ExxonMobil's supposed failure to account for the Attorneys General's expectations regarding the financial impact of future regulations thus cannot be credited.

99. Their true objectives are clear: to fish indiscriminately through ExxonMobil's records with the hope of finding some violation of some law that one of them might be empowered to enforce, or otherwise to harass ExxonMobil into endorsing the Green 20's policy views regarding how the United States should respond to climate change.

100. The desire of Attorneys General Schneiderman and Healey to impose liability on ExxonMobil for complying with SEC disclosure requirements, and the accounting methodologies incorporated in them, would create a direct conflict with federal law. Even if the New York or Massachusetts Attorneys General were to seek only to layer additional disclosure requirements beyond those imposed by the SEC, this would frustrate, and pose an obstacle to, Congress's and the SEC's efforts to create a uniform market for securities and provide consistent metrics by which investors can measure oil and gas companies on a relative basis.

I. ExxonMobil Files Suit to Protect Its Rights.

101. ExxonMobil has challenged members of the Green 20 for violating its constitutional rights. Attorney General Walker issued a subpoena to ExxonMobil on March 15, 2016.[211] ExxonMobil responded by seeking a declaratory judgment that Attorney General Walker's subpoena was illegal and unenforceable because it violated

[211] Ex. WW at App. 459–77.

ExxonMobil's rights under the United States and Texas constitutions.[212]

102. The Attorneys General of Texas and Alabama intervened in that action in an effort to protect the constitutional rights of their citizens. They criticized Attorney General Walker for undertaking an investigation "driven by ideology, and not law."[213] The Texas Attorney General called Attorney General Walker's purported investigation "a fishing expedition of the worst kind" and recognized it as "an effort to punish Exxon for daring to hold an opinion on climate change that differs from that of radical environmentalists."[214] The Alabama Attorney General echoed those sentiments, stating that the pending action in Texas "is more than just a free speech case. It is a battle over whether a government official has a right to launch a criminal investigation against anyone who doesn't share his radical views."[215]

103. On June 30, 2016, Attorney General Walker and ExxonMobil entered into a joint stipulation of dismissal, whereby the Attorney General agreed to withdraw his subpoena and ExxonMobil agreed to withdraw its litigation challenging the subpoena.

104. ExxonMobil commenced this action in the Northern District of Texas on June 15, 2016, seeking a preliminary injunction that would bar Attorney General Healey from enforcing the CID. In an attempt to defend Attorney General Healey's constitutionally infirm CID, Attorney General Schneiderman, along with other attorneys general, filed an amicus brief on August 8, 2016.[216] They argued that Attorney General

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212 Ex. LL at App. 323–49.
213 Ex. OO at App. 395.
214 Ex. CC at App. 244–45.
215 Ex. W at App. 216.
216 ECF No. 47.

Healey has a "compelling interest in the traditional authority" of her office "to investigate and combat violations of state law."[217]

105. Recognizing that there was nothing "traditional" about Attorney General Healey's use of state power, attorneys general from eleven states filed an amicus brief in support of ExxonMobil's preliminary injunction motion.[218] "As chief legal officers" of their respective states, they explained that their investigative power "does not include the right to engage in unrestrained, investigative excursions to promulgate a social ideology, or chill the expression of points of view, in international policy debates."[219] As a result, they noted that "[u]sing law enforcement authority to resolve a public policy debate undermines the trust invested in our offices and threatens free speech."[220] They concluded, "Regrettably, history is embroiled with examples where the legitimate exercise of law enforcement is soiled with political ends rather than legal ones. Massachusetts seeks to repeat[] that unfortunate history. That the statements and workings of the 'AG's United for Clean Power' are entirely one-sided, and target only certain participants in the climate change debate, speaks loudly enough."[221]

106. On November 10, 2016, ExxonMobil filed its First Amended Complaint which (i) joined the Attorney General of New York as a defendant and (ii) added new claims of conspiracy and federal preemption.

107. The allegations in ExxonMobil's lawsuit against Attorneys General Schneiderman and Healey were sufficiently compelling that Northern District of Texas

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217 *Id.*at 11.
218 ECF No. 63-2.
219 *Id.* at 3.
220 *Id.*
221 *Id.* at 11.

Judge Ed Kinkeade ordered discovery on the Attorneys General's bad faith.[222] Explaining that decision, Judge Kinkeade expressed "concern" that "the anticipatory nature of Attorney General Healey's remarks" at the March 29 press conference "about the outcome of the Exxon investigation" and "Attorney General Healey's actions leading up to the issuance of the CID" present the question of whether Attorney General Healey exhibited "bias or prejudgment about what the investigation of Exxon would discover."[223] Judge Kinkeade reaffirmed that conclusion in a subsequent order, where he expressed concern that the investigations conducted by Attorneys General Schneiderman and Healey may be means "to further their personal agendas by using the vast power of the government to silence the voices of all those who disagree with them."[224]

108. In early 2017, ExxonMobil's lawsuit was transferred to the Southern District of New York—the venue of the March 2016 press conference—with Judge Kinkeade's conclusion that "[t]he merits of each of Exxon's claims involve important issues that should be determined by a court."[225]

109. In June 2017, attorneys general from twelve states filed another amicus brief in support of ExxonMobil.[226] While recognizing that they may use their subpoena power "to identify and remedy unlawful conduct," these attorneys general explained that "[t]his power, however, does not include the right to engage in unrestrained, pretextual investigative excursions to promote one side of an international public policy debate, or

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222 ECF No. 73. In December 2016, this order was stayed pending briefing on the issue of personal jurisdiction. ECF Nos. 163, 164. In March 2017, the federal judge transferred the action to the Southern District of New York. ECF No. 180. Since then, discovery has been stayed indefinitely.

223 ECF No. 73 at 3–5.

224 ECF No. 180 at 5.

225 *Id.* at 2.

226 ECF No. 192-3.

chill the expression of viewpoints in those debates."[227] They further explained, "Defendants are not using their power in an impartial manner. Rather, they are embracing one side of a multi-faceted and robust policy debate, and simultaneously seeking to censor opposing viewpoints. This is bad faith."[228]

THE INVESTIGATIONS VIOLATE EXXONMOBIL'S RIGHTS

110. The facts recited above demonstrate the pretextual nature of the stated reasons for the Attorneys General's investigations. The statements Attorneys General Schneiderman and Healey made at (and after) the press conference, the climate change coalition common interest agreement, and other documents in the public record reveal the improper purpose of the investigations. The Attorneys General seek to change the political calculus surrounding public discourse about climate policy by (1) targeting speech that the Attorneys General perceive to advance political viewpoints on climate change that differ from their own, and (2) exposing ExxonMobil's documents that may be politically useful to climate activists aligned with the Attorneys General's agenda.

111. Neither Attorney General Schneiderman nor Attorney General Healey (nor, indeed, any other public official) may use the power of the state to prescribe what shall be orthodox in matters of public concern. It is improper under the United States and Texas Constitutions for state governments to restrict the range of permissible viewpoints by commencing investigations against those identified with disfavored policy positions. Such viewpoint discrimination violates the First Amendment.

112. It follows from the political character of the subpoena and the CID and their remarkably broad scope that they also violate the Fourth Amendment. Their

[227] *Id.* at 8.
[228] *Id.* at 9.

burdensome demands for irrelevant records violate the Fourth Amendment's reasonableness requirement, as well as its prohibition on fishing expeditions. Indeed, the evolving justifications for the New York and Massachusetts inquiries confirm that they are investigations driven by the identity of the target, not any good faith belief that a law was broken.

113. The investigations also fail to meet the requirements of due process. Attorneys General Schneiderman and Healey have publicly declared not only that they believe ExxonMobil and other energy companies pose an existential risk to the planet, but also the improper purpose of their investigations: to pressure ExxonMobil to support polices the Attorneys General favor in the public debate regarding climate change. Even worse, Attorney General Schneiderman has publicly accused ExxonMobil of engaging in a "massive securities fraud." Attorney General Healey has also declared, before her investigation even began, that she knew how it would end: with a finding that ExxonMobil violated the law.[229] The improper political bias that inspired the New York and Massachusetts investigations disqualifies Attorneys General Schneiderman and Healey from serving as the disinterested prosecutors required by the Constitution.

114. In the rush to fill what Attorney General Schneiderman described as a "[legislative] breach" in Congress regarding climate change, both he and Attorney General Healey have also openly and intentionally infringed on Congress's powers to regulate interstate commerce. Their investigations seek to regulate speech and conduct that occur almost entirely outside of New York and Massachusetts. Where a state seeks to regulate and burden out-of-state speech, as the investigations do here, the state

[229] Ex. B at App. 20–21.

improperly encroaches on Congress's exclusive authority to regulate interstate commerce and violates the Dormant Commerce Clause.

115. The Attorneys General's focus on ExxonMobil's reporting of proved reserves and assets is equally impermissible. They seek to hold ExxonMobil liable for not taking into account possible future regulations concerning climate change and carbon emissions when estimating proved reserves and reporting assets. But that theory cannot be reconciled with the SEC's requirement that ExxonMobil calculate its proved reserves based only on "existing" regulations, not future regulations. This facet of the investigation, therefore, impermissibly conflicts with, and poses an obstacle to, the goals and purposes of federal law. That conflict is also present in the Attorneys General's investigation of how ExxonMobil determines under binding accounting rules whether an asset has become impaired.

116. It is equally improper under Texas common law for litigants to misuse legal process for an objective other than the one for which the process is intended. The Attorneys General are misusing process to apply pressure on perceived political opponents to alter their views on a matter of public concern. Such conduct constitutes an abuse of process in violation of the common law of Texas.

117. Participation in a conspiracy in furtherance of either objective (constitutional violations and abuse of process) is unlawful in its own right.

118. ExxonMobil asserts the claims herein based on the facts available to it in the public record from, among other things, press accounts and freedom of information requests made by third parties. ExxonMobil anticipates that discovery from the

Attorneys General, as well as third parties, will reveal substantial additional evidence in support of its claims.

EXXONMOBIL HAS BEEN INJURED BY THE INVESTIGATIONS

119. The climate change investigations have injured, are injuring, and will continue to injure ExxonMobil.

120. ExxonMobil is an active participant in public discourse about climate change and climate policy. It has engaged in these discussions for decades, participating in the Intergovernmental Panel on Climate Change since its inception and contributing to every report issued by the organization since 1995. For more than a decade, ExxonMobil has widely and publicly confirmed that it "recognize[s] that the risk of climate change and its potential impacts on society and ecosystems may prove to be significant."[230] ExxonMobil has also publicly advocated a tax on carbon emissions since 2009.[231]

121. In conducting its business, ExxonMobil addresses the potential for future climate policy by applying proxy cost of carbon mechanisms, which seek to reflect potential policies governments may employ related to the exploration, development, production, transportation or use of carbon-based fuels.[232] This cost, which in some regions may approach $80 per ton by 2040, has been included in ExxonMobil's *Outlook for Energy* for several years.[233] Further, ExxonMobil requires all of its business lines to include, where appropriate, an estimate of greenhouse gas-related emissions costs in their economics when seeking funding for capital investments.[234]

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230 Ex. G at App. 93; *see also* Ex. H at App. 103 ("Because the risk to society and ecosystems from rising greenhouse gas emissions could prove to be significant, strategies that address the risk need to be developed and implemented.").
231 Ex. T at App. 182.
232 *Id.* at App. 190.
233 *Id.*
234 *Id.*

122. For the past decade, through its annual *Outlook for Energy* publication, ExxonMobil has sought to "promote better understanding of the issues shaping the world's energy future"—including how best to balance and manage concerns regarding the risks posed by climate change and the ever-growing energy needs of an increasing global middle class.[235] In its 2014 *Outlook for Energy*, ExxonMobil expressed its forward-looking view that energy demand from both traditional and renewable sources is expected to rise for the foreseeable future. By the year 2040, ExxonMobil stated that it expects to see "2 billion more people on the planet," a "130 percent larger global economy," and "about 35 percent greater demand for energy."[236] The company explained that, although renewables "will grow by close to 60 percent," demand for natural gas and oil will also grow by "65 percent" and "25 percent," respectively.[237] "The need for energy will continue to grow as economies expand, living standards rise and the world's population grows," ExxonMobil said. With respect to climate policy, ExxonMobil wrote:

> To meet this demand in the most effective way, none of our energy options should be arbitrarily denied, dismissed, penalized or promoted. And free trade opportunities should be facilitated – not curtailed. . . . Free markets supported by reliable public policies remain essential to creating economic opportunities and encouraging the private-sector investments that are critical to meeting people's energy needs.[238]

123. ExxonMobil has also expressed its view on the policy tradeoffs of certain climate initiatives. For example, ExxonMobil stated that any plan to reduce carbon-based emissions "in the range of 80 percent through the year 2040" in an effort to "stabiliz[e] world temperature increases not to exceed 2 degrees Celsius by 2100" is unlikely to be

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235 Ex. S58 at App. 1229.
236 *Id.* at App. 1230.
237 *Id.* at App. 1270.
238 *Id.* at 1278.

achieved because "the transition to lower carbon energy sources will . . . take time."[239] ExxonMobil has stated that "renewable sources, such as solar and wind, despite very rapid growth rates, cannot scale up quickly enough to meet global demand growth while at the same time displacing more traditional sources of energy."[240] According to ExxonMobil, "[f]actors limiting further penetration of renewables include scalability, geographic dispersion, intermittency (in the case of solar and wind), and cost relative to other sources."[241] The company further clarified that, accounting for current and future taxes on carbon emissions—which are embedded into energy demand projections that appear in the *Outlook for Energy*—did not change its perspective that the "cost limitations of renewables are likely to persist."[242]

124. While Attorneys General Schneiderman and Healey and the other members of the Green 20 are entitled to disagree with ExxonMobil's position on the proper policy responses to climate change, no member of that coalition is entitled to target one side of that discussion (or the debate about any other important public issue) to alter its viewpoints through baseless investigations and burdensome subpoenas. ExxonMobil intends—and has a constitutional right—to continue to advance its perspective in the national discussions over how best to respond to climate change and the likely future mix of energy sources. Its right to do so should not be violated through this exercise of government power.

125. As a result of the improper and politically motivated investigations launched by Attorneys General Schneiderman and Healey, ExxonMobil has suffered,

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239 Ex. S56 at App. 1150, 1152.
240 *Id.* at 1152–53.
241 *Id.* at App. 1148–1149.
242 *Id.* at 1149.

now suffers, and will continue to suffer violations of its rights under the First, Fourth, and Fourteenth Amendments to the United States Constitution and under Sections Eight, Nine, and Nineteen of Article One of the Texas Constitution. Attorneys General Schneiderman's and Healey's actions also violate Articles One and Six of the United States Constitution and constitute an unlawful conspiracy and abuse of process under common law.

126. Acting under the laws, customs, and usages of New York and Massachusetts, Attorneys General Schneiderman and Healey have subjected ExxonMobil, and are causing ExxonMobil to be subjected, to the deprivation of rights, privileges, and immunities secured by the United States Constitution and the Texas Constitution. ExxonMobil's rights are made enforceable against Attorneys General Schneiderman and Healey, who are acting under the color of law, by Article One, Section Eight of the United States Constitution, and the Due Process Clause of Section 1 of the Fourteenth Amendment to the United States Constitution, all within the meaning and contemplation of 42 U.S.C. § 1983, and by Sections Eight, Nine, and Nineteen of Article One of the Texas Constitution.

127. Absent relief, Attorneys General Schneiderman and Healey will continue to deprive ExxonMobil of these rights, privileges, and immunities.

128. In addition, ExxonMobil is threatened with further imminent injury that will occur if it continues to be targeted for expressing constitutionally protected speech that is disfavored by the Attorneys General.

129. The subpoena and the CID also threaten ongoing imminent injury to ExxonMobil because they subject ExxonMobil to an unreasonable search in violation of

the Fourth Amendment. Complying with these unreasonably burdensome and unwarranted fishing expeditions would require ExxonMobil to collect, review, and produce millions more documents, and would cost millions of dollars.

130. If ExxonMobil's request for injunctive relief is not granted, and Attorneys General Schneiderman and Healey are permitted to persist in their investigations, then ExxonMobil will suffer these imminent and irreparable harms. ExxonMobil has no adequate remedy at law for the violation of its constitutional rights.

CAUSES OF ACTION

A. First Cause of Action: Conspiracy

131. ExxonMobil repeats and realleges paragraphs 1 through 109 above as if fully set forth herein.

132. The facts set forth herein demonstrate that, acting under color of state law, Attorneys General Schneiderman and Healey have agreed with each other, and with others known and unknown, to deprive ExxonMobil of rights secured by the law to all, including those guaranteed by the First, Fourth, and Fourteenth Amendments to the United States Constitution, as well as Sections Eight, Nine, and Nineteen of Article One of the Texas Constitution.

133. In furtherance of these objectives, Attorneys General Schneiderman and Healey have, among other things, commenced pretextual investigations of ExxonMobil, issued the unlawful subpoena and CID, and entered the common interest agreement described above at paragraphs 62-63. The investigations were commenced without a good faith basis and with the ulterior motive of coercing ExxonMobil to adopt climate change policies favored by the Attorneys General, in violation of the First, Fourth, and

Fourteenth Amendments to the United States Constitution, as well as Sections Eight, Nine, and Nineteen of Article One of the Texas Constitution.

134. ExxonMobil has been damaged, and has been deprived of its rights under the United States and Texas Constitutions, as a proximate result of the unlawful conspiracy entered into by Attorneys General Schneiderman and Healey. The conduct of Attorneys General Schneiderman and Healey therefore violates both 42 U.S.C. § 1985 and the Texas common law.

B. Second Cause of Action: Violation of ExxonMobil's First and Fourteenth Amendment Rights

135. ExxonMobil repeats and realleges paragraphs 1 through 109 above as if fully set forth herein.

136. The Attorneys General's decision to impose investigative burdens on ExxonMobil over perceived differences in viewpoint on public policy contravenes, and any effort to continue the investigations would further contravene, the rights provided to ExxonMobil by the First Amendment to the United States Constitution, made applicable to the State of New York and the Commonwealth of Massachusetts by the Fourteenth Amendment, and by Section Eight of Article One of the Texas Constitution.

137. Impermissible viewpoint discrimination motivated the Attorneys General's deployment of state power. Attorneys General Schneiderman and Healey commenced their investigations of ExxonMobil and issued subpoenas and a CID based on their disagreement with ExxonMobil regarding how the United States should respond to the risks of climate change. And even if these state actions had not been taken for that illegal purpose, they would still violate the First Amendment, because they burden

ExxonMobil's political speech without being substantially related to any compelling governmental interest.

C. Third Cause of Action: Violation of ExxonMobil's Fourth and Fourteenth Amendment Rights

138. ExxonMobil repeats and realleges paragraphs 1 through 109 above as if fully set forth herein.

139. The issuance of the subpoena and the CID contravenes, and any effort to enforce the subpoena would further contravene, the rights provided to ExxonMobil by the Fourth Amendment to the United States Constitution, made applicable to the State of New York and the Commonwealth of Massachusetts by the Fourteenth Amendment, and by Section Nine of Article One of the Texas Constitution, to be secure in its papers and effects against unreasonable searches and seizures.

140. The Attorneys General's document requests amount to unreasonable searches and seizures because they constitute an abusive fishing expedition into 40 years of ExxonMobil's records, without any legitimate basis for believing that ExxonMobil violated New York or Massachusetts law. Their overbroad and irrelevant requests impose an undue burden on ExxonMobil and violate the Fourth Amendment's reasonableness requirement, which mandates that a subpoena be limited in scope, relevant in purpose, and specific in directive.

D. Fourth Cause of Action: Violation of ExxonMobil's Fourteenth Amendment Rights

141. ExxonMobil repeats and realleges paragraphs 1 through 109 above as if fully set forth herein.

142. The investigations conducted by Attorneys General Schneiderman and Healey contravene the rights provided to ExxonMobil by the Fourteenth Amendment to

the United States Constitution and by Section Nineteen of Article One of the Texas Constitution not to be deprived of life, liberty, or property without due process of law.

143. The investigations deprive ExxonMobil of due process of law by violating the requirement that a prosecutor be disinterested. The statements by Attorneys General Schneiderman and Healey at the Green 20 press conference and elsewhere make clear that they are biased against ExxonMobil.

E. Fifth Cause of Action: Violation of ExxonMobil's Rights Under the Dormant Commerce Clause

144. ExxonMobil repeats and realleges paragraphs 1 through 109 above as if fully set forth herein.

145. Article I, Section 8 of the United States Constitution grants Congress exclusive authority to regulate interstate commerce and thus prohibits the States from doing so. The investigations and the issuance of the subpoena and the CID contravene, and any effort to enforce the subpoena and the CID would further contravene, the rights provided to ExxonMobil under the Dormant Commerce Clause.

146. The investigations effectively regulate ExxonMobil's out-of-state speech while only purporting to investigate ExxonMobil's marketing and/or sale of energy and other fossil fuel derived products to consumers in New York and Massachusetts and its marketing and/or sale of securities to investors in New York and Massachusetts.

147. The Attorneys General demand documents that relate to (1) statements ExxonMobil made outside New York and Massachusetts, and (2) ExxonMobil's communications with organizations residing outside New York and Massachusetts. The Attorneys General's document requests therefore have the practical effect of primarily burdening interstate commerce.

F. Sixth Cause of Action: Federal Preemption

148. ExxonMobil repeats and realleges paragraphs 1 through 109 above as if fully set forth herein.

149. Article VI, Clause 2 of the United States Constitution provides that the laws of the United States "shall be the supreme law of the land." Any state law that imposes disclosure requirements inconsistent with federal law is preempted under the Supremacy Clause.

150. Federal law requires ExxonMobil to calculate and report its proved oil and gas reserves based on "existing economic conditions, operating methods, and government regulations." This requirement reflects the SEC's reasoned judgment about how best to supply investors with information about the relative value of oil and gas companies, as well as its balancing of competing priorities, such as the agency's desire for comprehensive disclosures, that are not unduly burdensome, and which investors can easily compare. Similarly, accounting standards recognized as authoritative by the SEC require ExxonMobil to use its own assumptions about future events when determining whether assets are impaired, not the assumptions of the Attorneys General. Attorneys General Schneiderman and Healey have stated that they seek to impose liability on ExxonMobil for failing to account for what they believe will be the financial impact of as-yet-unknown "carbon dioxide emissions limits put in place to stabilize global average temperature" in estimating and reporting ExxonMobil's proven reserves and valuing its assets. The Attorneys General therefore would seek to punish ExxonMobil for complying with federal law and the accounting standards embedded therein.

151. Even if the New York or Massachusetts Attorneys General were to seek only to layer additional disclosure requirements concerning oil and gas reserves and asset

valuations beyond those imposed by the SEC, this would frustrate, and pose an obstacle to, Congress's and the SEC's efforts to create a uniform market for securities and provide consistent metrics by which investors can measure oil and gas companies on a relative basis.

152. Because these investigations under New York and Massachusetts law create a conflict with, and pose an obstacle to, federal law, the application of New York and Massachusetts law to this case is preempted.

G. Seventh Cause of Action: Abuse of Process

153. ExxonMobil repeats and realleges paragraphs 1 through 109 above as if fully set forth herein.

154. Attorneys General Schneiderman and Healey committed an abuse of process under common law by (1) issuing the subpoena and the CID to ExxonMobil without having a good faith basis for conducting an investigation; (2) having an ulterior motive for issuing and serving the subpoena and the CID, namely, an intent to prevent ExxonMobil from exercising its right to express views with which they disagree; and (3) causing injury to ExxonMobil's reputation and violating its constitutional rights.

PRAYER FOR RELIEF

WHEREFORE, ExxonMobil prays that Attorneys General Schneiderman and Healey be summoned to appear and answer and that this Court award the following relief:

1. A declaratory judgment pursuant to 28 U.S.C. § 2201, declaring that investigations of ExxonMobil, as conducted by Attorneys General Schneiderman and Healey, violate ExxonMobil's rights under the First, Fourth, and Fourteenth Amendments to the United States Constitution; violate ExxonMobil's rights under Sections Eight,

Nine, and Nineteen of Article One of the Texas Constitution; and violate the Dormant Commerce Clause and the Supremacy Clause of the United States Constitution;

2. A declaratory judgment pursuant to 28 U.S.C. § 2201, declaring that the issuance of the subpoena and the CID constitute an abuse of process, in violation of common law;

3. A preliminary and permanent injunction halting or appropriately limiting the investigations;

4. Such other injunctive relief to which ExxonMobil is entitled; and

5. All costs of court together with any and all such other and further relief as this Court may deem proper.

Dated: January 12, 2018

EXXON MOBIL CORPORATION

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Exhibit B

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

EXXON MOBIL CORPORATION,

Plaintiff,

v.

ERIC TRADD SCHNEIDERMAN, Attorney General of New York, in his official capacity, and MAURA TRACY HEALEY, Attorney General of Massachusetts, in her official capacity,

Defendants.

No. 17-CV-2301 (VEC) (SN)

APPENDIX OF EXHIBITS TO PLAINTIFF EXXON MOBIL CORPORATION'S PROPOSED SECOND AMENDED COMPLAINT

Exhibit	Description	Page(s)
A	Justin Gillis & Clifford Krauss, *Exxon Mobil Investigated for Possible Climate Change Lies*, N. Y. Times (Nov. 5, 2015), *available at* http://www.nytimes.com/2015/11/06/science/exxon-mobil-under-investigation-in-new-york-over-climate-statements.html	App. 1 – App. 7
B	Transcript of the AGs United for Clean Power Press Conference, held on March 29, 2016, which was prepared by counsel based on a video recording of the event. The video recording is *available at* http://www.ag.ny.gov/press-release/ag-schneiderman-former-vice-president-al-gore-and-coalition-attorneys-general-across	App. 8 – App. 28
C	Seth Shulman, Union of Concerned Scientists and Climate, Accountability Institute, *Establishing Accountability for Climate Change Damages: Lessons from Tobacco Control* (Oct. 2012), *available at* http://www.climateaccountability.org/pdf/Climate%20 Accountability%20Rpt%200ct 12	App. 29 – App. 65

Exhibit A

The New York Times | http://nyti.ms/1WzznSi

SCIENCE

Exxon Mobil Investigated for Possible Climate Change Lies by New York Attorney General

By JUSTIN GILLIS and CLIFFORD KRAUSS NOV. 5, 2015

The New York attorney general has begun an investigation of Exxon Mobil to determine whether the company lied to the public about the risks of climate change or to investors about how such risks might hurt the oil business.

According to people with knowledge of the investigation, Attorney General Eric T. Schneiderman issued a subpoena Wednesday evening to Exxon Mobil, demanding extensive financial records, emails and other documents.

The investigation focuses on whether statements the company made to investors about climate risks as recently as this year were consistent with the company's own long-running scientific research.

The people said the inquiry would include a period of at least a decade during which Exxon Mobil funded outside groups that sought to undermine climate science, even as its in-house scientists were outlining the potential

consequences — and uncertainties — to company executives.

Kenneth P. Cohen, vice president for public affairs at Exxon Mobil, said on Thursday that the company had received the subpoena and was still deciding how to respond.

"We unequivocally reject the allegations that Exxon Mobil has suppressed climate change research," Mr. Cohen said, adding that the company had funded mainstream climate science since the 1970s, had published dozens of scientific papers on the topic and had disclosed climate risks to investors.

Mr. Schneiderman's decision to scrutinize the fossil fuel companies may well open a new legal front in the climate change battle.

The people with knowledge of the New York case also said on Thursday that, in a separate inquiry, Peabody Energy, the nation's largest coal producer, had been under investigation by the attorney general for two years over whether it properly disclosed financial risks related to climate change. That investigation was not previously reported, and has not resulted in any charges or other legal action against Peabody.

Vic Svec, a Peabody senior vice president, said in a statement, "Peabody continues to work with the New York attorney general's office regarding our disclosures, which have evolved over the years."

The Exxon inquiry might expand further to encompass other oil companies, according to the people with knowledge of the case, though no additional subpoenas have been issued to date.

The people spoke on the condition of anonymity, saying they were not authorized to speak publicly about investigations that could produce civil or criminal charges. The Martin Act, a New York state law, confers on the attorney general broad powers to investigate financial fraud.

To date, lawsuits trying to hold fuel companies accountable for damage

they are causing to the climate have failed in the courts, but most of those have been pursued by private plaintiffs.

Attorneys general for other states could join in Mr. Schneiderman's efforts, bringing far greater investigative and legal resources to bear on the issue. Some experts see the potential for a legal assault on fossil fuel companies similar to the lawsuits against tobacco companies in recent decades, which cost those companies tens of billions of dollars in penalties.

"This could open up years of litigation and settlements in the same way that tobacco litigation did, also spearheaded by attorneys general," said Brandon L. Garrett, a professor at the University of Virginia School of Law. "In some ways, the theory is similar — that the public was misled about something dangerous to health. Whether the same smoking guns will emerge, we don't know yet."

In the 1950s and '60s, tobacco companies financed internal research showing tobacco to be harmful and addictive, but mounted a public campaign that said otherwise and helped fund scientific research later shown to be dubious. In 2006, the companies were found guilty of "a massive 50-year scheme to defraud the public."

The history at Exxon Mobil appears to differ, in that the company published extensive research over decades that largely lined up with mainstream climatology. Thus, any potential fraud prosecution might depend on exactly how big a role company executives can be shown to have played in directing campaigns of climate denial, usually by libertarian-leaning political groups.

For several years, advocacy groups with expertise in financial analysis have been warning that fossil fuel companies might be overvalued in the stock market, since the need to limit climate change might require that much of their coal, oil and natural gas be left in the ground.

The people with knowledge of the case said the attorney general's investigation of Exxon Mobil began a year ago, focusing initially on what the company had told investors about the risks that climate change might pose to its business.

News reporting in the last eight months added impetus to the investigation, they said. In February, several news organizations, including The New York Times, reported that a Smithsonian researcher who had published papers questioning established climate science, Wei-Hock Soon, had received extensive funds from fossil fuel companies, including Exxon Mobil, without disclosing them. That struck some experts as similar to the activities of tobacco companies.

More recently, Inside Climate News and The Los Angeles Times have reported that Exxon Mobil was well aware of the risks of climate change from its own scientific research, and used that research in its long-term planning for activities like drilling in the Arctic, even as it funded groups from the 1990s to the mid-2000s that denied serious climate risks.

Mr. Cohen, of Exxon, said on Thursday that the company had made common cause with such groups largely because it agreed with them on a policy goal of keeping the United States out of a global climate treaty called the Kyoto Protocol.

"We stopped funding them in the middle part of the past decade because a handful of them were making the uncertainty of the science their focal point," Mr. Cohen said. "Frankly, we made the call that we needed to back away from supporting the groups that were undercutting the actual risk" of climate change.

"We recognize the risk," Mr. Cohen added. He noted that Exxon Mobil, after an acquisition in 2009, had become the largest producer of natural gas in the United States.

Because natural gas creates far less carbon dioxide than coal when burned for electricity, the company expects to be a prime beneficiary of President Obama's plan to limit emissions. Exxon Mobil has also endorsed a tax on emissions as a way to further reduce climate risks.

Whether Exxon Mobil began disclosing the business risks of climate change as soon as it understood them is likely to be a major focus of the New York case. The people with knowledge of the case said the attorney general's investigators were poring through the company's disclosure filings made since the 1970s, but were focusing in particular on recent statements to investors.

Exxon Mobil has been disclosing such risks in recent years, but whether those disclosures were sufficient has been a matter of public debate.

Last year, for example, the company warned investors of intensifying efforts by governments to limit emissions. "These requirements could make our products more expensive, lengthen project implementation times and reduce demand for hydrocarbons, as well as shift hydrocarbon demand toward relatively lower-carbon sources such as natural gas," the company said at the time.

But in another recent report, Exxon Mobil essentially ruled out the possibility that governments would adopt climate policies stringent enough to force it to leave its reserves in the ground, saying that rising population and global energy demand would prevent that. "Meeting these needs will require all economic energy sources, especially oil and natural gas," it said.

Wall Street analysts on Thursday were uncertain whether the case would inflict long-term damage on the company, which has already suffered from a plunge in commodity prices.

"This is not good news for Exxon Mobil or Exxon Mobil shareholders," said Fadel Gheit, a senior oil company analyst at Oppenheimer & Company. "It's a negative, though how much damage there will be to reputation or

performance is very hard to say."

John Schwartz contributed reporting.

A version of this article appears in print on November 6, 2015, on page A1 of the New York edition with the headline: Inquiry Weighs Whether Exxon Lied on Climate.

Exhibit B

AGs United For Clean Power Press Conference*

March 29, 2016: 11:35 am – 12:32 pm

AG Schneiderman: Thank you, good morning. I'm New York's Attorney General, Eric Schneiderman. I thank you for joining us here today for what we believe and hope will mark a significant milestone in our collective efforts to deal with the problem of climate change and put our heads together and put our offices together to try and take the most coordinated approach yet undertaken by states to deal with this most pressing issue of our time. I want to thank my co-convener of the conference, Vermont Attorney General, William Sorrel, who has been helping in joining us here and been instrumental in making today's events possible, and my fellow attorneys general for making the trip to New York for this announcement. Many of them had been working for years on different aspects of this problem to try and preserve our planet and reduce the carbon emissions that threaten all of the people we represent. And I'm very proud to be here today with Attorney General George Jepsen of Connecticut, Attorney General Brian Frosh of Maryland, Attorney General Maura Healey of Massachusetts, Attorney General Mark Herring of Virginia, and Attorney General Claude Walker of the U.S. Virgin Islands.

We also have staff representing other attorneys general from across the country, including: Attorney General Kamala Harris of California, Matt Denn of Delaware, Karl Racine of the District of Columbia, Lisa Madigan of Illinois, Tom Miller of Iowa, Janet Mills of Maine, Lori Swanson of Minnesota, Hector Balderas of New Mexico, Ellen Rosenblum of Oregon, Peter Kilmartin of Rhode Island and Bob Ferguson of Washington.

And finally, I want to extend my sincere thanks to Vice President Al Gore for joining us. It has been almost ten years since he galvanized the world's attention on climate change with his documentary *An Inconvenient Truth*.

And, I think it's fair to say that no one in American public life either during or beyond their time in elective office has done more to elevate the debate of our climate change or to expand global awareness about the urgency of the need for collective action on climate change than Vice President Gore. So it's truly an honor to have you here with us today.

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* The following transcript of the AGs United For Clean Power Press Conference, held on March 29, 2016, was prepared by counsel based on a video recording of the event, which is available at http://www.ag.ny.gov/press-release/ag-schneiderman-former-vice-president-al-gore-and-coalition-attorneys-general-across.

AGs United For Clean Power Press Conference

March 29, 2016: 11:35 am – 12:32 pm

So we've gathered here today for a conference – the first of its kind conference of attorneys general dedicated to coming up with creative ways to enforce laws being flouted by the fossil fuel industry and their allies in their short-sighted efforts to put profits above the interests of the American people and the integrity of our financial markets. This conference reflects our commitment to work together in what is really an unprecedented multi-state effort in the area of climate change. Now, we have worked together on many matters before and I am pleased to announce that many of the folks represented here were on the Amicus Brief we submitted to the United States Supreme Court in the *Friedrichs* v. *California Teacher Association* case. We just got the ruling that there was a four-four split so that the American labor movement survives to fight another day. And thanks, thanks to all for that effort and collaboration. It shows what we can do if we work together. And today we are here spending a day to ensure that this most important issue facing all of us, the future of our planet, is addressed by a collective of states working as creatively, collaboratively and aggressively as possible.

The group here was really formed when some of us came together to defend the EPA's Clean Power Plan, the new rules on greenhouse gases. And today also marks the day that our coalition is filing our brief in the Court of Appeals for the District of Columbia. In that important matter we were defending the EPA's rules. There is a coalition of other states on the other side trying to strike down the rules, but the group that started out in that matter together was 18 states and the District of Columbia. We call ourselves The Green 19, but now that Attorney General Walker of the Virgin Islands has joined us our rhyme scheme is blown. We can't be called The Green 19, so now we're The Green 20. We'll come up with a better name at some point.

But, ladies and gentlemen, we are here for a very simple reason. We have heard the scientists. We know what's happening to the planet. There is no dispute but there is confusion, and confusion sowed by those with an interest in profiting from the confusion and creating misperceptions in the eyes of the American public that really need to be cleared up. The U.S. Defense Department, no radical agency, recently called climate change an urgent and growing threat to our national security. We know that last month, February, was the furthest above normal for any month in history since 1880 when they started keeping meteorological records. The

facts are evident. This is not a problem ten years or twenty years in the future. [There are] people in New York who saw what happened with the additional storm surge with Super Storm Sandy. We know the water level in New York Harbor is almost a foot higher than it was. The New York State Department of Environmental Conservation, not some radical agency, predicts that if we continue at this pace, we'll have another 1.5 feet of water in New York Harbor. It'll go up by that much in 2050. So today, in the face of the gridlock in Washington, we are assembling a group of state actors to send the message that we are prepared to step into this breach. And one thing we hope all reasonable people can agree on is that every fossil fuel company has a responsibility to be honest with its investors and with the public about the financial and market risks posed by climate change. These are cornerstones of our securities and consumer protection laws.

My office reached a settlement last year based on the enforcement of New York securities laws with Peabody Energy. And they agreed to rewrite their financials because they had been misleading investors and the public about the threat to their own business plan and about the fact that they had very detailed analysis telling them how the price of coal would be going down in the face of actions taken by governments around the world. But they were hiding it from their investors. So they agreed to revise all of their filings with the SEC. And the same week we announced that, we announced that we had served a subpoena on ExxonMobil pursuing that and other theories relating to consumer and securities fraud. So we know, because of what's already out there in the public, that there are companies using the best climate science. They are using the best climate models so that when they spend shareholder dollars to raise their oil rigs, which they are doing, they know how fast the sea level is rising. Then they are drilling in places in the Arctic where they couldn't drill 20 years ago because of the ice sheets. They know how fast the ice sheets are receding. And yet they have told the public for years that there were no "competent models," was the specific term used by an Exxon executive not so long ago, no competent models to project climate patterns, including those in the Arctic. And we know that they paid millions of dollars to support organizations that put out propaganda denying that we can predict or measure the effects of fossil fuel on our climate, or even denying that climate change was happening.

There have been those who have raised the question: aren't you interfering with people's First Amendment rights? The First Amendment, ladies and gentlemen, does not give you the right to commit fraud. And we are law enforcement officers, all of us do work, every attorney general does work on fraud cases. And we are pursuing this as we would any other fraud matter. You have to tell the truth. You can't make misrepresentations of the kinds we've seen here.

And the scope of the problem we're facing, the size of the corporate entities and their alliances and trade associations and other groups is massive and it requires a multi-state effort. So I am very honored that my colleagues are here today assembling with us. We know that in Washington there are good people who want to do the right thing on climate change but everyone from President Obama on down is under a relentless assault from well-funded, highly aggressive and morally vacant forces that are trying to block every step by the federal government to take meaningful action. So today, we're sending a message that, at least some of us – actually a lot of us – in state government are prepared to step into this battle with an unprecedented level of commitment and coordination.

And now I want to turn it over to my great colleague, the co-convener of this conference, Vermont Attorney General William Sorrel.

AG Sorrel: I am pleased that the small state of Vermont joins with the big state of New York and are working together to make this gathering today a reality. Truth is that states, large and small, have critical roles to play in addressing environmental quality issues. General Schneiderman has mentioned our filing today in the D.C. Circuit on the Clean Power Plan case. Going back some time, many of the states represented here joined with the federal government suing American Electric Power Company, the company operating several coal-fired electric plants in the Midwest and largely responsible for our acid rain and other air quality issues in the eastern part of the United States, ultimately resulting in what I believe to date is the largest settlement in an environmental case in our country's history. With help from a number of these states, we successfully litigated Vermont's adoption of the so-called California standard for auto emissions in federal court in Vermont, now the standard in the country. And right down to the present day, virtually all of the

states represented today are involved in looking at the alleged actions by Volkswagen and the issues relating to emissions from tens of thousands of their diesel automobiles.

But today we're talking about climate change which I don't think there's any doubt, at least in our ranks, is the environmental issue of our time. And in order for us to effectively address this issue, it's going to take literally millions of decisions and actions by countries, by states, by communities and by individuals. And, just very briefly, Vermont is stepping up and doing its part. Our legislature has set goals of 75% reduction – looking from a 1990 base line – a 75% reduction in greenhouse gas emissions by 2050. Similarly, our electric utilities have a goal of 75% use of renewable energy sources by 2032. So, we've been doing our part. Our presence here today is to pledge to continue to do our part. I'm mindful of the fact that I'm between you and the real rock star on this issue, and so I'm going to turn it back to General Schneiderman to introduce the next speaker.

AG Schneiderman: Thank you. Thank you. I'm not really a rock star.

[Laughter]

Thank you Bill. It's always a pleasure to have someone here from a state whose U.S. senator is from Brooklyn.

[Laughter]

And doing pretty well for himself. So, Vice President Gore has a very busy schedule. He has been traveling internationally, raising the alarm but also training climate change activists. He rearranged his schedule so he could be here with us to day to meet with my colleagues and I. And there is no one who has done more for this cause, and it is a great pleasure to have him standing shoulder to shoulder with us as we embark on this new round in what we hope will be the beginning of the end of our addiction to fossil fuel and our degradation of the planet. Vice President Al Gore.

VP Gore: Thank you very much, Eric. Thank you. Thank you very much.

[Applause]

Thank you very much, Attorney General Schneiderman. It really and truly is an honor for me to join you and your colleagues here,

Bill Sorrel of Vermont, Maura Healey of Massachusetts, Brian Frosh of Maryland, Mark Herring of Virginia, George Jepsen of Connecticut and Claude Walker from the U.S. Virgin Islands, and the ten (let's see 1, 2, 3, 4, 5) how many other – ten other states . . . eleven other state attorneys general offices that were represented in the meetings that took place earlier, prior to this press conference.

I really believe that years from now this convening by Attorney General Eric Schneiderman and his colleagues here today may well be looked back upon as a real turning point in the effort to hold to account those commercial interests that have been – according to the best available evidence – deceiving the American people, communicating in a fraudulent way, both about the reality of the climate crisis and the dangers it poses to all of us. And committing fraud in their communications about the viability of renewable energy and efficiency and energy storage that together are posing this great competitive challenge to the long reliance on carbon-based fuels. So, I congratulate you, Attorney General, and all of you, and to those attorneys general who were so impressively represented in the meetings here. This is really, really important.

I am a fan of what President Obama has been doing, particularly in his second term on the climate crisis. But it's important to recognize that in the federal system, the Congress has been sharply constraining the ability of the executive branch to fully perform its obligations under [the] Constitution to protect the American people against the kind of fraud that the evidence suggests is being committed by several of the fossil fuel companies, electric utilities, burning coal, and the like. So what these attorneys general are doing is exceptionally important. I remember very well – and I'm not going to dwell on this analogy – but I remember very well from my days in the House and Senate and the White House the long struggle against the fraudulent activities of the tobacco companies trying to keep Americans addicted to the deadly habit of smoking cigarettes and committing fraud to try to constantly hook each new generation of children to replenish their stock of customers who were dying off from smoking-related diseases. And it was a combined effort of the executive branch, and I'm proud that the Clinton-Gore administration played a role in that, but it was a combined effort in which the state attorneys general played the crucial role in securing an historic victory for public health. From the time the tobacco companies were first found out, as evidenced by the historic attorney generals' report of 1964, it

took 40 years for them to be held to account under the law. We do not have 40 years to continue suffering the consequences of the fraud allegedly being committed by the fossil fuel companies where climate change is concerned.

In brief, there are only three questions left to be answered about the climate crisis. The first one is: Must we change, do we really have to change? We rely on fossil fuels for more than 80% of all the energy our world uses. In burning it we've reduced poverty and raised standards of living and built this elaborate global civilization, and it looks like it'll be hard to change. So naturally, people wonder: Do we really have to change? The scientific community has been all but unanimous for a long time now. But now mother nature and the laws of physics – harder to ignore than scientists – are making it abundantly clear that we have to change. We're putting 110 million tons of man-made heat trapping global warming pollution into the thin shell of atmosphere surrounding our planet every day, as if it's an open sewer. And the cumulative amount of that man-made global warming pollution now traps as much extra heat energy in the earth's system as would be released by 400,000 Hiroshima-class atomic bombs exploding every 24 hours on the surface of our planet.

It's a big planet, but that's a lot of energy. And it is the reason why temperatures are breaking records almost every year now. 2015 was the hottest year measured since instruments had been used to measure temperature. 2014 was the second hottest. 14 of the 15 hottest have been in the last 15 years. As the Attorney General mentioned, February continues the trend by breaking all previous records – the hottest in 1,632 months ever measured. Last December 29th, the same unnatural global warming fuel storm system that created record floods in the Midwest went on up to the Arctic and on December 29th, smack in the middle of the polar winter night at the North Pole, temperatures were driven up 50 degrees above the freezing point. So the North Pole started thawing in the middle of the winter night. Yesterday the announcement came that it's the smallest winter extent of ice ever measured in the Arctic.

Ninety-three percent of the extra heat goes into the oceans of the world, and that has consequences. When Super Storm Sandy headed across the Atlantic toward this city, it crossed areas of the Atlantic that were nine degrees Fahrenheit warmer than normal

and that's what made that storm so devastating. The sea level had already come up because of the ice melting, principally off Greenland and Antarctica. And as the Attorney General mentioned, that's a process now accelerating. But these ocean-based storms are breaking records now. I just came from the Philippines where Super Typhoon Haiyon created 4 million homeless people when it crossed much warmer waters of the Pacific. By the way, it was a long plane flight to get here and I happened to get, just before we took off, the 200-page brief that you all filed in support of the Clean Power Plan. Really excellent work. Footnotes took up a lot of those 200 pages so I'm not claiming to [have] read all 200 of them.

The same extra heat in the oceans is disrupting the water cycle. We all learned in school that the water vapor comes off the oceans and falls as rain or snow over the land and then rushes back to the ocean. That natural life-giving process is being massively disrupted because the warmer oceans put a lot more water vapor up there. And when storm conditions present themselves they, these storms will reach out thousands of kilometers to funnel all that extra humidity and water vapor into these massive record-breaking downpours. And occasionally it creates a snowpocalypse or snowmaggedon but most often, record-breaking floods. We've had seven once-in-a-thousand-year floods in the last ten years in the U.S. Just last week in Louisiana and Arkansas, two feet of rain in four days coming again with what they call the Maya Express off the oceans. And the same extra heat that's creating these record-breaking floods also pull the soil moisture out of the land and create these longer and deeper droughts all around the world on every continent.

Every night on the news now it's like a nature hike through the Book of Revelation. And we're seeing tropical diseases moving to higher latitudes – the Zika virus. Of course the transportation revolution has a lot to do with the spread of Zika and Dengue Fever and Chikungunya and diseases I've never heard of when I was growing up and maybe, probably most of you never did either. But now, they're moving and taking root in the United States. Puerto Rico is part of the United States, by the way – not a state, but part of our nation. Fifty percent of the people in Puerto Rico are estimated to get the Zika virus this year. By next year, eighty percent. When people who are part of the U.S. territory, when women are advised not to get pregnant, that's something new that

ought to capture our attention. And in large areas of Central America and South America, women are advised now not to get pregnant for two years until they try to get this brand new viral disease under control.

The list of the consequences continues, and I'm not going to go through it all, but the answer to that first question: "Do we have to change?" is clearly now to any reasonable thinking person: "yes, we have to change." Now the second question is: "Can we change?" And for quite a few years, I will confess to you that, when I answered that question yes, it was based on the projections of scientists and technologists who said, just wait. We're seeing these exponential curves just begin, solar is going to win, wind power is going to get way cheaper, batteries are going to have their day, we're going to see much better efficiency. Well now we're seeing these exponential curves really shoot up dramatically. Almost 75% of all the new investment in the U.S. in new generating capacity last year was in solar and wind – more than half worldwide. We're seeing coal companies go bankrupt on a regular basis now. Australia is the biggest coal exporter in the world. They've just, just the analysis there, they're not going to build any more coal plants because solar and wind are so cheap. And we're seeing this happen all around the world. But, there is an effort in the U.S. to slow this down and to bring it to a halt because part of the group that, again according to the best available evidence, has been committing fraud in trying to convince people that the climate crisis is not real, are now trying to convince people that renewable energy is not a viable option. And, worse than that, they're using their combined political and lobbying efforts to put taxes on solar panels and jigger with the laws to require that installers have to know the serial number of every single part that they're using to put on a rooftop of somebody's house, and a whole series of other phony requirements, unneeded requirements, that are simply for the purpose of trying to slow down this renewable revolution. In the opinion of many who have looked at this pattern of misbehavior and what certainly looks like fraud, they are violating the law. If the Congress would actually work – our democracy's been hacked, and that's another story, not the subject of this press conference – but if the Congress really would allow the executive branch of the federal government to work, then maybe this would be taken care of at the federal level. But these brave men and women, who are the attorneys general of the states represented in this historic coalition, are doing their job and – just

as many of them did in the tobacco example – they are now giving us real hope that the answer to that third question: "Will we change?" is going to be "yes." Because those who are using unfair and illegal means to try to prevent the change are likely now, finally, at long last, to be held to account. And that will remove the last barriers to allow the American people to move forward and to redeem the promise of our president and our country in the historic meeting in Paris last December where the United States led the global coalition to form the first global agreement that is truly comprehensive. If the United States were to falter and stop leading the way, then there would be no other leader for the global effort to solve this crisis. By taking the action these attorneys general are taking today, it is the best, most hopeful step I can remember in a long time – that we will make the changes that are necessary.

So, I'll conclude my part in this by, once again, saying congratulations to these public servants for the historic step they are taking today. And on behalf of many people, who I think would say it's alright for me to speak for them, I'd like to say thank you.

AG Schneiderman: Thank you very much, and now my other colleagues are going to say a few words. For whatever reason, I've gotten into the habit, since we always seem to do this, we do this in alphabetical order by state, which I learned when I first became an AG but I guess we'll stick with it. Connecticut Attorney General George Jepsen who was our partner in the *Friedrichs* case and stood with me when we announced that we were filing in that case. We've done a lot of good work together. Attorney General Jepsen.

AG Jepsen: I'd like to thank Eric and Bill for their leadership on this important issue and in convening this conference and to recognize the man who has done more to make global warming an international issue than anybody on the entire planet – Vice President Al Gore. In the backdrop, in the backdrop of a very dysfunctional Congress, state attorneys general, frequently on a bipartisan, basis have shown that we can stand up and take action where others have not. The Vice President referenced the tobacco litigation, which was before my time but hugely important in setting the tone and the structures by which we do work together. Since becoming attorney general in 2011, we've taken on the big banks and their mortgage servicing issues, a $25 billion settlement. We've taken on Wall Street's Standard & Poor's for mislabeling mortgage-backed securities – as

a 20-state coalition – mislabeling mortgage-backed securities as AAA when in fact they were junk. Working together on data privacy issues, and now it's time that we stand up once again and take on what is the most important issue of our generation. We owe it to our children, our children's children, to step up and do the right thing, to work together and I'm committed to it. Thank you.

AG Schneiderman: Thank you. And now a relatively new colleague but someone who has brought incredible energy to this fight and who we look forward to working with on this and other matters for a long time to come. Maryland Attorney General Brian Frosh.

AG Frosh: Well, first thank you again to General Schneiderman and General Sorrel for putting together this group and it's an honor to be with you, Mr. Vice President. Thank you so much for your leadership. I'm afraid we may have reached that point in the press conference where everything that needs to be said has been said, but everyone who needs to say it hasn't said it yet.

[Laughter]

So, I will try to be brief. Climate change is an existential threat to everybody on the planet. Maryland is exceptionally vulnerable to it. The Chesapeake Bay bisects our state. It defines us geographically, culturally, historically. We have as much tidal shoreline as states as large as California. We have islands in the Chesapeake Bay that are disappearing. We have our capital, Annapolis, which is also the nuisance flood capital of the United States. It's under water way, way, way too often. It's extraordinarily important that we address the problem of climate change. I'm grateful to General Sorrel and General Schneiderman for putting together this coalition of the willing. I'm proud to be a part of it in addressing and supporting the President's Clean Power Plan. What we want from ExxonMobil and Peabody and ALEC is very simple. We want them to tell the truth. We want them to tell the truth so that we can get down to the business of stopping climate change and of healing the world. I think that as attorneys general, as the Vice President said, we have a unique ability to help bring that about and I'm very glad to be part of it.

AG Schneiderman: Thank you. And, another great colleague, who has done extraordinary work before and since becoming attorney general working with our office on incredibly important civil rights issues,

financial fraud issues, Massachusetts Attorney General Maura Healey.

AG Healey: Thank you very much General Schneiderman. Thank you General Schneiderman and General Sorrel for your leadership on this issue. It's an honor for me to be able to stand here today with you, with our colleagues and certainly with the Vice President who, today, I think, put most eloquently just how important this is, this commitment that we make. Thank you for your leadership. Thank you for your continuing education. Thank you for your inspiration and your affirmation.

You know, as attorneys general, we have a lot on our plates: addressing the epidemics of opiate abuse, gun violence, protecting the economic security and well-being of families across this country; all of these issues are so important. But make no mistake about it, in my view, there's nothing we need to worry about more than climate change. It's incredibly serious when you think about the human and the economic consequences and indeed the fact that this threatens the very existence of our planet. Nothing is more important. Not only must we act, we have a moral obligation to act. That is why we are here today.

The science – we do believe in science; we're lawyers, we believe in facts, we believe in information, and as was said, this is about facts and information and transparency. We know from the science and we know from experience the very real consequences of our failure to address this issue. Climate change is and has been for many years a matter of extreme urgency, but, unfortunately, it is only recently that this problem has begun to be met with equally urgent action. Part of the problem has been one of public perception, and it appears, certainly, that certain companies, certain industries, may not have told the whole story, leading many to doubt whether climate change is real and to misunderstand and misapprehend the catastrophic nature of its impacts. Fossil fuel companies that deceived investors and consumers about the dangers of climate change should be, must be, held accountable. That's why I, too, have joined in investigating the practices of ExxonMobil. We can all see today the troubling disconnect between what Exxon knew, what industry folks knew, and what the company and industry chose to share with investors and with the American public.

We are here before you, all committed to combating climate change and to holding accountable those who have misled the public. The states represented here today have long been working hard to sound the alarm, to put smart policies in place, to speed our transition to a clean energy future, and to stop power plants from emitting millions of tons of dangerous global warming pollution into our air. I will tell you, in Massachusetts that's been a very good thing. Our economy has grown while we've reduced greenhouse gas emissions and boosted clean power and efficiency. We're home to a state with an $11 billion clean energy industry that employs nearly 100,000 people. Last year clean energy accounted for 15% of New England's power production. Our energy efficiency programs have delivered $12.5 billion in benefits since 2008 and are expected to provide another $8 billion over the next three years. For the past five years, Massachusetts has also been ranked number one in the country for energy efficiency. So we know what's possible. We know what progress looks like. But none of us can do it alone. That's why we're here today. We have much work to do, but when we act and we act together, we know we can accomplish much. By quick, aggressive action, educating the public, holding accountable those who have needed to be held accountable for far too long, I know we will do what we need to do to address climate change and to work for a better future. So, I thank AG Schneiderman for gathering us here today and for my fellow attorneys general in their continued effort in this important fight. Thank you.

AG Schneiderman: Thank you. And now another great colleague who speaks as eloquently as anyone I've heard about what's happening to his state, and a true hero of standing up in a place where maybe it's not quite as politically easy as it is to do it in Manhattan but someone who is a true aggressive progressive and a great attorney general, Mark Herring from Virginia.

AG Herring: Thank you, Eric. Good afternoon. In Virginia, climate change isn't some theoretical issue. It's real and we are already dealing with its consequences. Hampton Roads, which is a coastal region in Virginia, is our second most populated region, our second biggest economy and the country's second most vulnerable area as sea levels rise. The area has the tenth most valuable assets in the world threatened by sea level rise. In the last 85 years the relative sea level in Hampton Roads has risen 14 inches – that's well over a foot – in just the last century.

Some projections say that we can expect an additional two to five feet of relative sea level rise by the end of this century – and that would literally change the face of our state. It would cripple our economy and it could threaten our national security as Norfolk Naval, the world's largest naval base, is impacted. Nuisance flooding that has increased in frequency will become the norm. They call it blue sky flooding. Storm surges from tropical systems will threaten more homes, businesses and residents. And even away from the coast, Virginians are expected to feel the impact of climate change as severe weather becomes more dangerous and frequent. Just a few weeks ago, we had a highly unusual February outbreak of tornadoes in the Commonwealth that was very damaging and unfortunately deadly.

Farming and forestry is our number one industry in Virginia. It's a $70 billion industry in Virginia that supports around 400,000 jobs and it's going to get more difficult and expensive. And, the Commonwealth of Virginia local governments and the navy are already spending millions to build more resilient infrastructure, with millions and millions more on the horizon. To replace just one pier at Norfolk Naval is about $35 to $40 million, and there are 14 piers, so that would be around a half billion right there.

As a Commonwealth and a nation, we can't put our heads in the sand. We must act and that is what today is about. I am proud to have Virginia included in this first of its kind coalition which recognizes the reality and the pressing threat of man-made climate change and sea level rise. This group is already standing together to defend the Clean Power Plan – an ambitious and achievable plan – to enjoy the health, economic and environmental benefits of cleaner air and cleaner energy. But there may be other opportunities and that's why I have come all the way from Virginia. I am looking forward to exploring ideas and opportunities, to partner and collaborate, if there are enforcement actions we need to be taking, if there are legal cases we need to be involved in, if there are statutory or regulatory barriers to growing our clean energy sectors and, ultimately, I want to work together with my colleagues here and back in Virginia to help combat climate change and to shape a more sustainable future.

And for any folks who would say the climate change is some sort of made-up global conspiracy, that we're wasting our time, then

come to Hampton Roads. Come to Norfolk and take a look for yourselves. Mayor Fraim would love to have you.

AG Schneiderman: Thank you. And our closer, another great colleague who has traveled far but comes with tremendous energy to this cause and is an inspiration to us all, U.S. Virgin Islands Attorney General Claude Walker.

AG Walker: Thank you. Thank you, General Schneiderman, Vice President Gore. One of my heroes, I must say. Thank you. I've come far to New York to be a part of this because in the Virgin Islands and Puerto Rico, we experience the effects of global warming. We see an increase in coral bleaching, we have seaweeds, proliferation of seaweeds in the water, all due to global warming. We have tourism as our main industry, and one of the concerns that we have is that tourists will begin to see this as an issue and not visit our shores. But also, residents of the Virgin Islands are starting to make decisions about whether to live in the Virgin Islands – people who have lived there for generations, their families have lived there for generations. We have a hurricane season that starts in June and it goes until November. And it's incredibly destructive to have to go through hurricanes, tropical storms annually. So people make a decision: Do I want to put up with this, with the power lines coming down, buildings being toppled, having to rebuild annually? The strengths of the storms have increased over the years. Tropical storms now transform into hurricanes. When initially they were viewed as tropical storms but as they get close to the land, the strength increases. So we're starting to see people make decisions about whether to stay in a particular place, whether to move to higher ground – which is what some have said – as you experience flooding, as you experience these strong storms. So we have a strong stake in this, in making sure that we address this issue.

We have launched an investigation into a company that we believe must provide us with information about what they knew about climate change and when they knew it. And we'll make our decision about what action to take. But, to us, it's not an environmental issue as much as it is about survival, as Vice President Gore has stated. We try as attorneys general to build a community, a safe community for all. But what good is that if annually everything is destroyed and people begin to say: Why am I living here?

So we're here today to support this cause and we'll continue. It could be David and Goliath, the Virgin Islands against a huge corporation, but we will not stop until we get to the bottom of this and make it clear to our residents as well as the American people that we have to do something transformational. We cannot continue to rely on fossil fuel. Vice President Gore has made that clear. We have to look at renewable energy. That's the only solution. And it's troubling that as the polar caps melt, you have companies that are looking at that as an opportunity to go and drill, to go and get more oil. Why? How selfish can you be? Your product is destroying this earth and your strategy is, let's get to the polar caps first so we can get more oil to do what? To destroy the planet further? And we have documents showing that. So this is very troubling to us and we will continue our fight. Thank you.

AG Schneiderman: Thank you and Eric. And I do want to note, scripture reports David was not alone in fact, Brother Walker. Eric and Matt will take on-topic questions.

Moderator: Please just say your name and publication.

Press Person: John [inaudible] with *The New York Times*. I count two people who have actually said that they're launching new investigations. I'm wondering if we could go through the list and see who's actually in and who is not in yet.

AG Schneiderman: Well, I know that prior to today, it was, and not every investigation gets announced at the outset as you know, but it had already been announced that New York and California had begun investigations with those stories. I think Maura just indicated a Massachusetts investigation and the Virgin Islands has, and we're meeting with our colleagues to go over a variety of things. And the meeting goes on into the afternoon. So, I am not sure exactly where everyone is. Different states have – it's very important to understand – different states have different statutes, different jurisdictions. Some can proceed under consumer protection law, some securities fraud laws, there are other issues related to defending taxpayers and pension funds. So there are a variety of theories that we're talking about and collaborating and to the degree to which we can cooperate, we share a common interest, and we will. But, one problem for journalists with investigations is, part of doing an investigation is you usually don't talk a lot about what you're doing after you start it or even as you're preparing to start it.

AGs United For Clean Power Press Conference

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Press Person: Shawn McCoy with *Inside Sources*. A *Bloomberg Review* editorial noted that the Exxon investigation is preposterous and a dangerous affirmation of power. *The New York Times* has pointed out that Exxon has published research that lines up with mainstream climatology and therefore there's not a comparison to Big Tobacco. So is this a publicity stunt? Is the investigation a publicity stunt?

AG Schneiderman: No. It's certainly not a publicity stunt. I think the charges that have been thrown around – look, we know for many decades that there has been an effort to influence reporting in the media and public perception about this. It should come as no surprise to anyone that that effort will only accelerate and become more aggressive as public opinion shifts further in the direction of people understanding the imminent threat of climate change and other government actors, like the folks represented here step up to the challenge. The specific reaction to our particular subpoena was that the public reports that had come out, Exxon said were cherry picked documents and took things out of context. We believe they should welcome our investigation because, unlike journalists, we will get every document and we will be able to put them in context. So I'm sure that they'll be pleased that we're going to get everything out there and see what they knew, when they knew it, what they said and what they might have said.

Press Person: David [inaudible] with *The Nation.* Question for General Schneiderman. What do you hope to accomplish with your Exxon investigation? I'm thinking with reference to Peabody where really there was some disclosure requirements but it didn't do a great deal of [inaudible]. Is there a higher bar for Exxon? What are the milestones that you hope to achieve after that investigation?

AG Schneiderman: It's too early to say. We started the investigation. We received a lot of documents already. We're reviewing them. We're not pre-judging anything, but the situation with oil companies and coal companies is somewhat different because the coal companies right now are, the market is already judging the coal industry very harshly. Coal companies, including Peabody, are teetering on the brink. The evidence that we advanced and what was specifically disclosed about Peabody were pretty clear cut examples of misrepresentations made in violation with the Securities and Exchange Commission, made to investors. It's too early to say what we're going to find with Exxon but we intend to work as

aggressively as possible, but also as carefully as possible. We're very aware of the fact that everything we do here is going to be subject to attack by folks who have a huge financial interest in discrediting us. So we're going to be aggressive and creative but we are also going to be as careful and meticulous and deliberate as we can.

VP Gore: Could I respond to the last couple of questions just briefly. And in doing so, I'd like to give credit to the journalistic community and single out the Pulitzer Prize winning team at *InsideClimate News*, also the *Los Angeles Times* and the student-led project at Columbia School of Journalism under Steve Coll. And the facts that were publicly presented during, in those series of articles that I have mentioned, are extremely troubling, and where Exxon Mobil in particular is concerned. The evidence appears to indicate that, going back decades, the company had information that it used for the charting of its plan to explore and drill in the Arctic, used for other business purposes information that largely was consistent with what the mainstream scientific community had collected and analyzed. And yes, for a brief period of time, it did publish some of the science it collected, but then a change came, according to these investigations. And they began to make public statements that were directly contrary to what their own scientists were telling them. Secondly, where the analogy to the tobacco industry is concerned, they began giving grants – according to the evidence collected – to groups that specialize in climate denial, groups that put out information purposely designed to confuse the public into believing that the climate crisis was not real. And according to what I've heard from the preliminary inquiries that some of these attorneys general have made, the same may be true of information that they have put out concerning the viability of competitors in the renewable energy space. So, I do think the analogy may well hold up rather precisely to the tobacco industry. Indeed, the evidence indicates that, that I've seen and that these journalists have collected, including the distinguished historian of science at Harvard, Naomi Oreskes wrote the book *The Merchants of Doubt* with her co-author, that they hired several of the very same public relations agents that had perfected this fraudulent and deceitful craft working for the tobacco companies. And so as someone who has followed the legislative, the journalistic work very carefully, I think the analogy does hold up.

AGs United For Clean Power Press Conference

March 29, 2016: 11:35 am – 12:32 pm

Press Person: [inaudible] with *InsideClimate News*. Along the lines of talking about that analogy: from a legal framework, can you talk about a comparison, similarities and differences between this potential case and that of Big Tobacco?

AG Schneiderman: Well, again, we're at the early stages of the case. We are not pre-judging the evidence. We've seen some things that have been published by you and others, but it is our obligation to take a look at the underlying documentation and to get at all the evidence, and we do that in the context of an investigation where we will not be talking about every document we uncover. It's going to take some time, but that's another reason why working together collectively is so important. And we are here today because we are all committed to pursuing what you might call an all-levers approach. Every state has different laws, different statutes, different ways of going about this. The bottom line is simple. Climate change is real, it is a threat to all the people we represent. If there are companies, whether they are utilities or they are fossil fuel companies, committing fraud in an effort to maximize their short-term profits at the expense of the people we represent, we want to find out about it. We want to expose it, and we want to pursue them to the fullest extent of the law.

Moderator: Last one.

Press Person: Storms, floods will arise they are all going to continue to destroy property and the taxpayers . . .

Moderator: What's your name and . . .

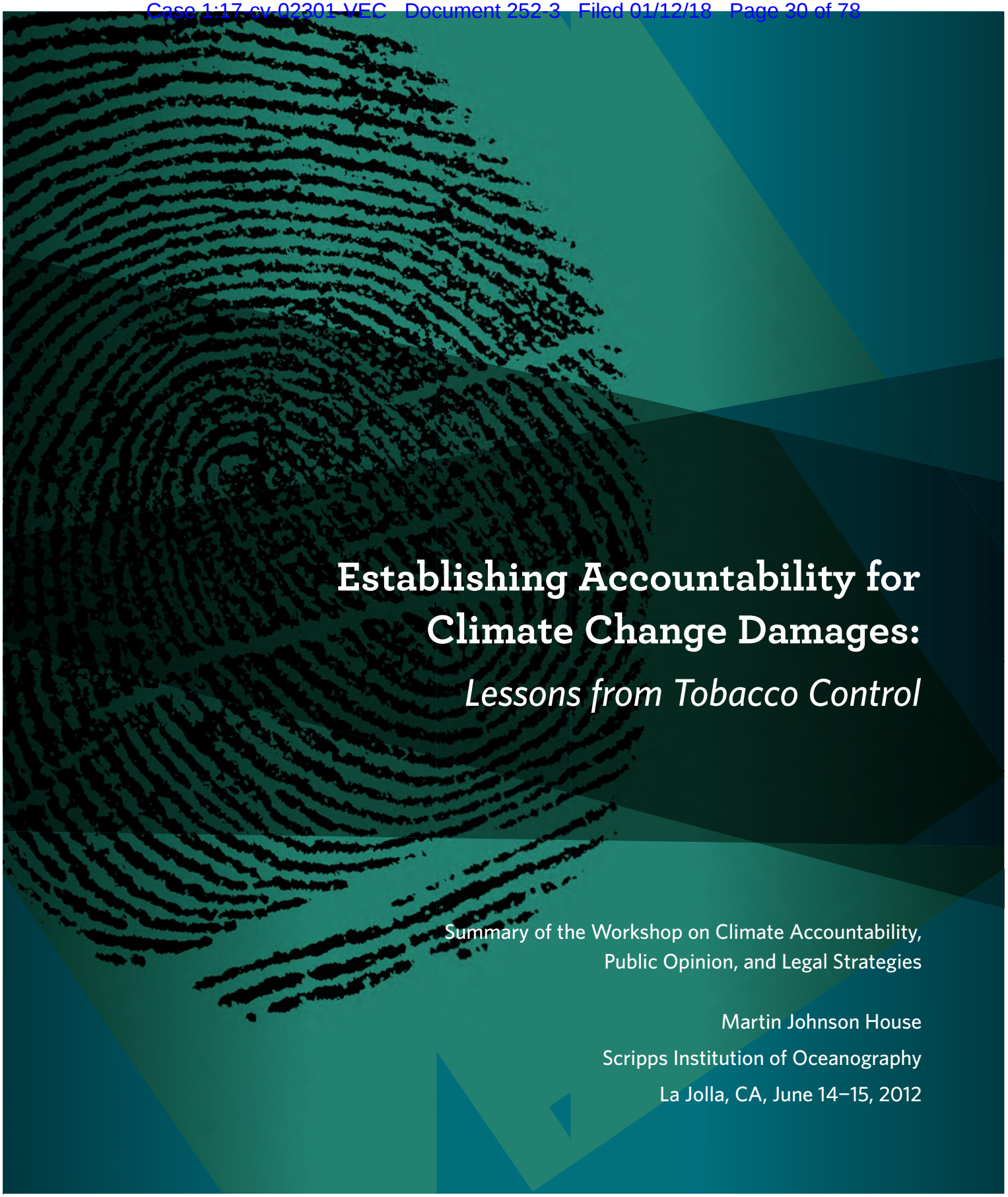
Press Person: Oh, sorry. Matthew Horowitz from *Vice*. Taxpayers are going to have to pay for these damages from our national flood insurance claims. So if fossil fuel companies are proven to have committed fraud, will they be held financially responsible for any sorts of damages?

AG Schneiderman: Again, it's early to say but certainly financial damages are one important aspect of this but, and it is tremendously important and taxpayers – it's been discussed by my colleagues – we're already paying billions and billions of dollars to deal with the consequences of climate change and that will be one aspect of – early foreseeing, it's far too early to say. But, this is not a situation where financial damages alone can deal with the problem. We have to change conduct, and as the Vice President indicated, other

places in the world are moving more rapidly towards renewables. There is an effort to slow that process down in the United States. We have to get back on that path if we're going to save the planet and that's ultimately what we're here for.

Moderator: We're out of time, unfortunately. Thank you all for coming.

Exhibit C



Establishing Accountability for Climate Change Damages:

Lessons from Tobacco Control

Summary of the Workshop on Climate Accountability, Public Opinion, and Legal Strategies

Martin Johnson House

Scripps Institution of Oceanography

La Jolla, CA, June 14–15, 2012

CLIMATE ACCOUNTABILITY INSTITUTE

Union of Concerned Scientists

Report Author
This workshop summary was written by Seth Shulman, senior staff writer at the Union of Concerned Scientists.

Workshop Organizers
The workshop was conceived by Naomi Oreskes of the University of California–San Diego, Peter C. Frumhoff and Angela Ledford Anderson of the Union of Concerned Scientists, Richard Heede of the Climate Accountability Institute, and Lewis M. Branscomb of the John F. Kennedy School of Government at Harvard University and the Scripps Institution of Oceanography. Alison Kruger of the Union of Concerned Scientists coordinated workshop logistics.

Organizational affiliations are for identification purposes only. The opinions expressed in this report are the sole responsibility of the participants quoted.

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The Union of Concerned Scientists is the leading science-based nonprofit working for a healthy environment and a safer world. More information about UCS is available on the UCS website at *www.ucsusa.org*.

The Climate Accountability Institute engages in research and education on anthropogenic climate change, dangerous interference with the climate system, and the contribution of fossil fuel producers' carbon production to atmospheric carbon dioxide content. This encompasses the science of climate change, the civil and human rights associated with a stable climate regime not threatened by climate-destabilizing emissions of greenhouse gases, and the risks, liabilities, and disclosure requirements regarding past and future emissions of greenhouse gases attributable to primary carbon producers.

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Preface

The workshop sought to compare the evolution of public attitudes and legal strategies related to tobacco control with those related to anthropogenic climate change.

For many years after scientists first concluded that smoking causes cancer, the tobacco companies continued to win court cases by arguing, among other things, that smokers assumed the risk of smoking and that no specific cancer deaths could be attributed to smoking. At some point, however, the tobacco companies began to lose legal cases against them even though the science had not substantively changed. Juries began to find the industry liable because tobacco companies had known their products were harmful while they publicly denied the evidence, targeted youth, and manipulated nicotine levels.

To explore how this transformation happened, and to assess its implications for people working to address climate change, the Union of Concerned Scientists and the Climate Accountability Institute brought together about two dozen leading scientists, lawyers and legal scholars, historians, social scientists, and public opinion experts for a June 14–15, 2012, workshop at the Scripps Institution of Oceanography in La Jolla, CA.

Specifically, the workshop sought to compare the evolution of public attitudes and legal strategies related to tobacco control with those related to anthropogenic climate change, fostering an exploratory, open-ended dialogue about whether we might use the lessons from tobacco-related education, laws, and litigation to address climate change. The workshop explored which changes now being observed (e.g., increasing extreme heat, sea level rise) can be most compellingly attributed to human-caused climate change, both scientifically and in the public mind. Participants also considered options for communicating this scientific attribution of climate impacts in ways that would maximize public understanding and produce the most effective mitigation and adaptation strategies.

The workshop explored the degree to which the prospects for climate mitigation might improve with public acceptance (including judges and juries) of the causal relationships between fossil fuel production, carbon emissions, and climate change. Participants

debated the viability of diverse strategies, including the legal merits of targeting carbon producers (as opposed to carbon emitters) for U.S.-focused climate mitigation. And finally, the group sought to identify the most promising and mutually reinforcing intellectual, legal, and/or public strategies for moving forward. We are pleased to share the outcome of these preliminary workshop discussions. Among the many points captured in this report, we want to highlight the following:

- A key breakthrough in the public and legal case for tobacco control came when internal documents came to light showing the tobacco industry had knowingly misled the public. Similar documents may well exist in the vaults of the fossil fuel industry and their trade associations and front groups, and there are many possible approaches to unearthing them.
- Drawing upon the forthcoming "carbon majors" analysis by Richard Heede, it may be feasible and highly valuable to publicly attribute important changes in climate, such as sea level rise, to specific carbon producers. Public health advocates were effective in attributing the health impacts of smoking to major tobacco companies.
- While we currently lack a compelling public narrative about climate change in the United States, we may be close to coalescing around one. Furthermore, climate

Climate change may loom larger today in the public mind than tobacco did when public health advocates began winning policy victories.

change may loom larger today in the public mind than tobacco did when public health advocates began winning policy victories. Progress toward a stronger public narrative might be aided by use of a "dialogic approach" in which climate advocates work in partnership with the public. Such a narrative must be both scientifically robust and emotionally resonant to cut through the fossil fuel industry's successful efforts to sow uncertainty and confusion.

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Climate Accountability, Public Opinion, and Legal Strategies Workshop

Martin Johnson House, Scripps Institution of Oceanography, La Jolla, CA, June 14–15, 2012

1. Introduction

Tobacco companies realized they did not need to prove their products were safe. Rather, they had only to implement a calculated strategy to foster doubt about the science.

For decades after U.S. tobacco firms first became aware of strong scientific evidence linking smoking to cancer in the mid-1950s, the industry adopted a public relations strategy that knowingly sought to confuse people about the safety of its products. As we now know, tobacco industry lawyers long advised their clients that if they admitted to selling a hazardous product they would be vulnerable to potentially crippling liability claims. So, despite the scientific evidence, the industry developed and implemented a sophisticated disinformation campaign designed to deceive the public about the hazards of smoking and forestall governmental controls on tobacco consumption.

As time went on, a scientific consensus emerged about a multitude of serious dangers from smoking. On January 11, 1964, for instance, the U.S. government released the first report by the Surgeon General's Advisory Committee on Smoking and Health, which specifically warned the public about the link between smoking and lung cancer.[1] Nonetheless, the tobacco industry's disinformation campaign continued. As internal documents have long since revealed, the tobacco companies quickly realized they did not need to prove their products were safe. Rather, they had only to implement a calculated strategy to foster doubt about the science in the minds of the public. As one infamous internal memo from the Brown & Williamson company put it: "Doubt is our product, since it is the best means of competing with the 'body of fact' that exists in the minds of the general public."[2] The industry also managed to convince juries that smoking was a voluntary act, that the public was well informed of "potential risks," and that smokers therefore only had themselves to blame for whatever harm may have occurred.

It has become increasingly clear during the past decade or more that the fossil fuel industry has adopted much the same strategy:

attempting to manufacture uncertainty about global warming even in the face of overwhelming scientific evidence that it is accelerating at an alarming rate and poses a myriad of public health and environmental dangers. Not only has the fossil fuel industry taken a page from the tobacco industry's playbook in its efforts to defeat action on climate change, it also shares with the tobacco industry a number of key players and a remarkably similar network of public relations firms and nonprofit "front groups" that have been actively sowing disinformation about global warming for years.[3]

At this pivotal moment for climate change, with international agreement all but stymied and governmental action in the United States largely stalled, the Union of Concerned Scientists and the Climate Accountability Institute sought to build a clearer understanding of the drivers of change that eventually proved effective against the tobacco industry. To be sure, lawyers played a huge role; scientific evidence played an important role as well. But notably, neither science nor legal strategies alone drove the changes in public understanding of the health dangers posed by smoking. Workshop participants were therefore asked to share their perspectives on a key question: given the power and resources of the tobacco industry, how *were* tobacco control efforts able to finally gain traction?

By gathering a distinguished and complementary group of experts, the Climate Accountability Workshop created the conditions for a well-informed discussion about the history of tobacco prevention as an example for those working on climate change: exploring how science in combination with the law, public advocacy, and possibly new technology can spur a seminal shift in public understanding and engagement on an issue of vital importance to the global community.

What follows is a summary of the workshop designed to highlight some of the major themes that emerged over the course of two days of structured dialogue. Because the discussion was often animated and wide-ranging, this report does not attempt to portray a comprehensive account of all the ideas presented, but rather the key findings that emerged.

When I talk to my students I always say, tobacco causes lung cancer, esophageal cancer, mouth cancer. . . . My question is: What is the "cancer" of climate change that we need to focus on?

—Naomi Oreskes

2. Lessons from Tobacco Control: Legal and Public Strategies

Both the tobacco industry and the fossil fuel industry have adopted a strategy of disseminating disinformation to manufacture uncertainty and forestall government action, and in so doing, have placed corporate interests above the public interest.

Workshop participants reviewed the history of tobacco control in the United States to identify lessons that might be applicable to action on global warming. The first important insight was that the history of tobacco control efforts stretches back much further than most people realize. The American Tobacco Company was broken up as a result of the Sherman Anti-Trust Act of 1890, and several U.S. states banned tobacco entirely between 1890 and 1920 in response to concerns that the powerful tobacco industry was paying off legislators. Those bans were all overturned after successful lobbying efforts by the industry, but a landmark 1900 legal case (*Austin v. Tennessee*) set an important precedent by upholding the legal right of states to ban tobacco.[4]

A second important insight was that the battle for tobacco control continues today, despite substantial gains over the past several decades. In a point made forcefully by Robert Proctor, a science historian who frequently serves as an expert witness in tobacco litigation, "Tobacco is not over." While the number of cigarettes smoked worldwide may no longer be growing, an estimated 6 trillion were still sold and smoked in 2012. More than 45 million Americans continue to smoke, some 8 million live with a serious illness caused by their smoking, and more than 400,000 die prematurely each year.[5]

A few principles emerged from the long fight for tobacco control. First, any legal strategies involving court cases require plaintiffs, a venue, and law firms willing to litigate—all of which present significant hurdles to overcome. Robert Proctor generalized about the history of tobacco-related litigation by noting that tobacco opponents typically won with simplicity but lost in the face of complexity. As he noted, it is worth remembering that, "The industry can win by making plaintiffs have to pass a thousand hurdles, any one of which can derail the whole effort." Second, public victories can occur even when the formal point is lost. In one effort that sought to stop tobacco research at Stanford University, for instance, no formal ban was enacted but the public outcry led the Philip Morris company to stop its external research programs anyway.[6]

The Importance of Documents in Tobacco Litigation

One of the most important lessons to emerge from the history of tobacco litigation is the

value of bringing internal industry documents to light. Roberta Walburn, a key litigator in the pathbreaking 1994 case *State of Minnesota and Blue Cross and Blue Shield of Minnesota v. Philip Morris et al. [C1-94-8565]*, explained that her legal team, with strong backing from Minnesota Attorney General Hubert "Skip" Humphrey, made it a goal from the start of the lawsuit to use the process of legal discovery to gain access to Philip Morris's internal documents and make them part of the public domain. Walburn noted that Humphrey was mocked and scorned by many of his colleagues for this emphasis, but it proved critical to achieving the landmark settlement.

For the previous four decades, the tobacco industry had not lost a single legal case nor been forced to release most of its internal documents. But attorneys began to see the tremendous value of the industry's memos in an individual New Jersey smoker's case in the 1980s, and when a paralegal leaked some internal documents in the early 1990s. By making such documents a key part of the Minnesota litigation, the legal discovery process ultimately brought some 35 million pages of industry documents to light.[7]

Of course, the release of so many documents also presented immense challenges, requiring the legal team to pore over them one page at a time. The industry also went to great lengths to hide documents throughout the discovery process, listing them under different corporate entities, "laundering" scientific documents by passing them through attorneys in order to claim attorney-client privilege, and playing word games in order to claim they didn't have any documents on the topics sought by the plaintiffs. During pre-trial discovery in the Minnesota litigation, Walburn noted, Philip Morris was spending some $1.2 million dollars every week in legal defense.

In the end, however, the documents proved crucial in helping to shift the focus of litigation away from a battle of the experts over the science of disease causation and toward an investigation of the industry's conduct. As Roberta Walburn explained, their legal team was able to say to the judge and jury, "You don't have to believe us or our experts; just look at the companies' own words." The strategy of prying documents from the industry also proved effective because once a lawsuit begins, litigants are required by law to retain evidence. The very first order issued by the judge in the Minnesota case was a document preservation order, which meant that the company could be held in contempt of court if it failed to comply. Companies are also required to preserve any documents they think might be pertinent to possible future litigation.

Today, the documents that have emerged from tobacco litigation have been collected in a single searchable, online repository: the so-called Legacy Tobacco Document Library (available at l*egacy.library.ucsf.edu*) currently contains a collection of some 80 million pages. Stanton Glantz, a professor of cardiology at the University of California–San Francisco who directs the project, noted the importance of the decision to create an integrated collection accessible to all. One advantage of such a collection, he said, is that it becomes a magnet for more documents from disparate sources.

Because the Legacy Collection's software and infrastructure is already in place, Glantz suggested it could be a possible home for a parallel collection of documents from the fossil fuel industry pertaining to climate change. He stressed the need to think carefully about which companies and which trade groups might have documents that could be especially useful. And he underscored the point that bringing documents to light must be

established as an objective independent of the litigation, or else the most valuable documents are not likely be made public.

Documents Helped Establish a Conspiracy

The release of documents from the tobacco industry became front-page news in the 1990s. The headlines did not tout the fact that tobacco causes lung cancer, which had already been widely reported; instead, they focused on the tobacco industry's lies to the public, its efforts to target children in its marketing campaigns, and its manipulation of the amount of nicotine in cigarettes to exploit their addictive properties.[8] Many of these facts had not come to the public's attention until the industry's internal documents came to light.

Most importantly, the release of these documents meant that charges of conspiracy or racketeering could become a crucial component of tobacco litigation. Formerly secret documents revealed that the heads of tobacco companies had colluded on a disinformation strategy as early as 1953.[9]

Sharon Eubanks noted the importance of documents in a racketeering case against the tobacco industry she prosecuted during the Clinton administration. That case, *U.S.A v. Philip Morris, Inc.*, was filed after President Clinton directed his attorney general to attempt to recover from the tobacco industry the costs of treating smokers under Medicare. The Justice Department brought the case under the Racketeer Influenced and Corrupt Organizations (RICO) statute that was originally enacted to combat organized crime.

The U.S. District Court for the District of Columbia found Philip Morris and other tobacco companies charged in the case guilty of violating RICO by fraudulently covering up the health risks associated with smoking and by marketing their products to children. The court imposed most of the requested remedies, and rejected the defendants' argument that their statements were protected by the First Amendment, holding that the amendment does not protect "knowingly fraudulent" statements. The tobacco companies appealed the ruling but a three-judge panel of the U.S. Court of Appeals for the District of Columbia unanimously upheld the decision in 2009.

Lessons for the Climate Community

One theme to emerge from this review of tobacco litigation was the similarity between the tobacco industry's disinformation campaign and the fossil fuel industry's current efforts to sow confusion about climate change. As one participant put it, "The tobacco fight is now the climate fight." Both industries have adopted a strategy of disseminating disinformation to manufacture uncertainty and forestall governmental action, and in so doing, have placed corporate interests above the public interest. Several workshop participants presented detailed evidence of the close ties between the two industries in terms of personnel, nonprofit "front groups," and funders.

Given these close connections, many participants suggested that incriminating documents may exist that demonstrate collusion among the major fossil fuel companies, trade associations, and other industry-sponsored groups. Such documents could demonstrate companies' knowledge, for instance, that the use of their products damages human health and well-being by contributing to "dangerous anthropogenic interference with the climate system."[10]

Finally, participants agreed that most questions regarding how the courts might rule on climate change cases remain unanswered. Most participants also agreed that pursuing a

legal strategy against the fossil fuel industry would present a number of different obstacles and opportunities compared with those faced by litigants in the tobacco cases. As Roberta Walburn noted, however, both efforts do share an important public interest imperative: "People have been harmed and there should be justice," she said. "If you want to right a wrong you have to be bold."

3. Climate Legal Strategies: Options and Prospects

Tobacco started with a small box of documents. We used that to wedge open a large pattern of discovery. . . . It looks like where you are with climate is as good as it was with tobacco—probably even better. I think this is a very exciting possibility.

—Stanton Glantz

A wide variety of potential legal strategies were discussed at the workshop. Participants agreed that a variety of different approaches could prove successful in spurring action and engaging the public on global warming, with suggestions ranging from lawsuits brought under public nuisance laws (the grounds for almost all current environmental statutes) to libel claims against firms and front groups that malign the reputations of climate scientists.

Several participants warned of the potential polarizing effect of lawsuits. While it is never an easy decision to bring a lawsuit, they noted, litigants must understand that if they pursue such a course they should expect a protracted and expensive fight that requires careful planning. Among the issues discussed were the importance of seeking documents in the discovery process as well as the need to choose plaintiffs, defendants, and legal remedies wisely. Another issue of concern was the potential for a polarizing lawsuit to slow the broad cultural shift in public perception (see section 5).

Strategies to Win Access to Internal Documents

Having attested to the importance of seeking internal documents in the legal discovery phase of tobacco cases, lawyers at the workshop emphasized that there are many effective avenues for gaining access to such documents.

First, lawsuits are not the only way to win the release of documents. As one participant noted, congressional hearings can yield documents. In the case of tobacco, for instance, the infamous "Doubt is our product" document came out after being subpoenaed by Congress.[11] State attorneys general can also subpoena documents, raising the possibility that a single sympathetic state attorney general might have substantial success in bringing key internal documents to light. In addition, lawyers at the workshop noted that even grand juries convened by a district attorney could result in significant document discovery.

Jasper Teulings, general counsel for Greenpeace International, emphasized that the release of incriminating internal documents

from the fossil fuel industry would not only be relevant to American policy but could have widespread international implications.

Importance of Choosing Plaintiffs, Defendants, and Legal Remedies

Matt Pawa, a leading litigator on climate-related issues, discussed his current case, *Kivalina v. ExxonMobil Corporation, et al.*, now pending on appeal. The lawsuit, brought under public nuisance law, seeks monetary damages from the energy industry for the destruction of the native village of Kivalina, AK, by coastal flooding due to anthropogenic climate change. Damages have been estimated by the U.S. Army Corps of Engineers and the U.S. Government Accountability Office between $95 million and $400 million.

The suit was dismissed by a U.S. district court in 2009 on the grounds that regulating global warming emissions is a political rather than a legal issue that needs to be resolved by Congress and the executive branch rather than the courts. An appeal was filed with the Ninth Circuit Court of Appeals in November 2009, but was rejected in September 2012. The plaintiffs have yet to determine whether to take further legal action, either by calling for an *en banc* review of the appeal verdict or by re-filing the case in state court.

Pawa noted that in representing Kivalina, he chose a plaintiff whose stake in the case is patently evident, as is the harm that has come to the village. Because those facts remain largely beyond dispute, it puts the focus of the case squarely on attributing the damage to the defendants. Pawa has used the principle of "joint and several" liability, which (in his words) holds that, "If two guys are outside a bar and the plaintiff gets beaten up and only one technically does it but both of them collude in the activity, they can both be held responsible." Because Exxon and the other corporate defendants in the Kivalina case are indisputably large emitters of heat-trapping gases, Pawa said he will argue that they "are basically like the two guys outside that bar." To help with his argument of causation, Pawa will also argue that Exxon and the other defendants distorted the truth. He said that litigation not only allows him to pursue a remedy for some of those most vulnerable to the effects of climate change, but also serves as "a potentially powerful means to change corporate behavior."

Jasper Teulings recounted the unusual and controversial case in which Greenpeace International helped representatives from Micronesia—an island nation threatened by rising sea levels—request a transboundary environmental impact assessment (TEIA) in the Czech Republic, hoping to prevent the Czech government from granting a 30-year permit extension for a coal-fired power plant. That action, he said, led to a national debate about global warming in a country led by a climate skeptic, and the Czech environment minister ultimately resigned as a result. The case also drew the attention of the international media, including the *Wall Street Journal*, *Economist*, and *Financial Times*.[12]

Participants weighed the merits of legal strategies that target major carbon *emitters*, such as utilities, versus those that target carbon *producers*, such as coal, oil, and natural gas companies. In some cases, several lawyers at the workshop noted, emitters are better targets for litigation because it is easy to establish their responsibility for adding substantial amounts of carbon to the atmosphere. In other cases, however, plaintiffs might succeed in cases against the producers who unearthed the carbon in the first place.

In lawsuits targeting carbon producers, lawyers at the workshop agreed, plaintiffs need

to make evidence of a conspiracy a prominent part of their case. Richard Ayres, an experienced environmental attorney, suggested that the RICO Act, which had been used effectively against the tobacco industry, could similarly be used to bring a lawsuit against carbon producers. As Ayres noted, the RICO statute requires that a claimant establish the existence of a "criminal enterprise," and at least two acts of racketeering (with at least one having occurred within the past four years). It is not even clear, he added, whether plaintiffs need to show they were actually harmed by the defendant's actions. As Ayres put it, "RICO is not easy. It is certainly not a sure win. But such an action would effectively change the subject to the campaign of deception practiced by the coal, gas, and oil companies."

The issue of requesting an appropriate legal remedy was also discussed. As one of the workshop's lawyers said, "As we think about litigation, we need to consider: what does our carbon system look like with climate stabilization? It has to be something positive. Only then can we figure out what strategies we need to pursue." As important as this broad vision of a legal remedy is, this participant also emphasized the advantage of asking courts to do things they are already comfortable doing, noting that, "Even if your ultimate goal might be to shut down a company, you still might be wise to start out by asking for compensation for injured parties."

Other Potential Legal Strategies

False advertising claims

Naomi Oreskes, a historian of science at the University of California–San Diego, brought up the example of the Western Fuels Association, an industry-sponsored front group that has run ads containing demonstrably false information. Oreskes noted that she has some of the public relations memos from the group and asked whether a false advertising claim could be brought in such a case. Lawyers at the workshop said that public relations documents could probably be used as evidence in such a case but they cautioned that courts view claims designed to influence consumer behavior differently than they do those designed to influence legislative policy.

Some lawyers at the workshop did note that historical false advertising claims could be deemed relevant, especially if plaintiffs can show that the conduct has continued. In tobacco litigation, for example, plaintiffs have successfully gone back as far as four decades for evidence by establishing the existence of a continuing pattern by the tobacco industry.

Joe Mendelson, director of climate policy at the National Wildlife Federation, suggested that such a strategy might be employed to take on the coal industry's advertising campaign, which has targeted swing states whose attorneys general are unlikely to call out the ads' distortions. Such a legal case, Mendelson explained, might achieve a victory in terms of public education and engagement.

Libel suits

Lawyers at the workshop noted that libel lawsuits can be an effective response to the fossil fuel industry's attempts to discredit or silence atmospheric scientists. Pennsylvania State University's Michael Mann, for instance, has worked with a lawyer to threaten libel lawsuits for some of the things written about him in the media, and has already won one such case in Canada. Matt Pawa explained that libel cases merely require the claimant to establish falsity, recklessness, and harm. "What could be more harmful than impugning the integrity of a scientist's reputation?" Pawa asked. Roberta Walburn noted that libel suits can also serve

to obtain documents that might shed light on industry tactics.

Atmospheric trust litigation

Mary Christina Wood, professor of law at the University of Oregon, discussed her involvement with so-called atmospheric trust litigation, a legal strategy she pioneered that is now unfolding in all 50 states. The goal of the litigation—to force massive reforestation and soil carbon sequestration that would return the planet to a sustainable level of atmospheric carbon dioxide (350 parts per million)—is grounded in the internationally recognized principle known as the Public Trust Doctrine, first enunciated by the Roman Emperor Justinian.

Under this doctrine, a state or third-party corporation can be held liable for stealing from or damaging a resource—in this case, the atmosphere—that is held as a public trust. The beneficiaries in the case are citizens—both current and future—who claim that the defendants (the state or federal government or third-party corporations) have a duty to protect and not damage that resource, which they oversee or for which they bear some responsibility.

Wood noted that this legal action has several promising features: it is being brought by children, can highlight local impacts of climate change because it is being brought in every state, and is flexible enough to be brought against states, tribes, the federal government, or corporations. Wood said that while the atmospheric trust lawsuits are just starting, some 22 amicus briefs (in which law professors from around the country argue that the approach is legally viable) have already been filed.

Disagreement about the Risks of Litigation

Despite widespread endorsement by workshop participants of the potential value in pursuing legal strategies against the fossil fuel industry, some of the lawyers present expressed concern about the risks entailed should these cases be lost. As one participant put it, "We have very powerful laws and we need to think strategically about them so they won't be diminished by the establishment of a legal precedent or by drawing the attention of hostile legislators who might seek to undermine them."

Others, such as Sharon Eubanks, took issue with this perspective. "If you have a statute, you should use it," she said. "We had the case where people said, 'What if you screw up RICO?' But no matter what the outcome, litigation can offer an opportunity to inform the public." Stanton Glantz concurred with this assessment. As he put it, "I can't think of any tobacco litigation that backfired; I can't think of a single case where litigation resulted in bad law being made."

4. Attribution of Impacts and Damages: Scientific and Legal Aspects

Why should taxpayers pay for adaptation to climate change? That is a sound bite that I don't hear used. Why should taxpayers bear the risk? Perhaps that question alone can help shift public perception.

—Myles Allen

Several sessions at the workshop addressed a variety of vexing issues concerning the extent to which localized environmental impacts can be accurately attributed to global warming and how, in turn, global warming impacts might be attributed to specific carbon emitters or producers. Many challenges are involved in these kinds of linkages, from getting the science right to communicating it effectively.

Myles Allen, a climate scientist at Oxford University, suggested that while it is laudable to single out the 400 Kivalina villagers, all 7 billion inhabitants of the planet are victims of climate change. He noted, for instance, that while the United Nations Framework Convention on Climate Change makes an inventory of global warming emissions, it does not issue an inventory of who is being affected. As he put it, "Why should taxpayers pay for adaptation to climate change? That is a sound bite that I don't hear used. Why should taxpayers bear the risk? Perhaps that question alone can help shift public perception."

Allen also noted that the scientific community has frequently been guilty of talking about the climate of the twenty-second century rather than what's happening now. As a result, he said, people too often tend to perceive climate change as a problem for our grandchildren.

Challenges of Attributing Environmental Effects to Anthropogenic Climate Change

Several of the climate scientists at the meeting addressed the scientific challenges involved in attributing specific environmental effects to anthropogenic climate change. For example, global warming, natural variability, population exposure, and population vulnerability are all factors in the disasters that make headlines. Myles Allen noted that while scientists can accurately speak about increases in average global temperature, such large-scale temperature measurements are difficult to link to specific individuals.

Claudia Tebaldi, a climate scientist at Climate Central, emphasized the problem of confounding factors: "If you want to have statistically significant results about what has already happened [on the health impacts of climate change]," she said, "we are far from being able to say anything definitive because the signal is so often overwhelmed by noise."

Given that nearly all consequences have multiple causes, Tebaldi reviewed the difficulties entailed in efforts at so-called *single-step attribution* (in which a single variable is added or removed from a model), *multi-step attribution* (in which two or more attribution linkages are drawn), and *associative patterns of attribution* (in which linkages are mapped over time in order to detect possible patterns). She noted that the authors of the 2007 Intergovernmental Panel on Climate Change report were relatively comfortable attributing certain environmental phenomena to climate change: changes in snow/ice/frozen ground; increased runoff and anticipated snowmelt in spring; warmer water temperatures and changes in salinity, oxygen levels, and ocean acidification. But she added that it is still hard to say anything statistically significant about some key areas of concern.

Climate scientist Mike MacCracken expressed more optimism about the ability of scientists to identify patterns of changes. The traditional view, he explained, is that one cannot attribute a single weather event to human-induced climate change, but climate change reflects a difference in the frequency and intensity of weather events from the past—that is how the term is defined. So, as the distribution of weather events changes, we are seeing an increasing likelihood of what were once very rare events, but are likely to become much more frequent.

Myles Allen agreed that scientists could be far more confident about a group of events rather than a single event, but noted, "Then you are talking again about climate [as opposed to weather]. We can say with confidence how the risks are changing. Absolutely. And some harms can be caused by change in risk. But we are still talking about probabilities." As an example, Allen cited work by Stefan Rahmstorf and Dim Coumou, who found an 80 percent probability that the July 2010 heat record would not have occurred without global warming.[13]

Absolutely crucial is real progress on regional and local consequences of climate change. We have general notions that the Southwest will be drier. But once the science is able to say with confidence what will happen in the states of Colorado and Arizona, then the people who live there will want to pressure their representatives to fix their problem. Then political people will be much more responsive to the issue. That will be real progress in the next few years.

—Lew Branscomb

Others agreed that many different types of aggregate findings can be useful. Paul Slovic, for instance, cited the example of the book *At War with the Weather* by Howard Kunreuther. In studying economic losses from natural disasters, Kunreuther found an exponential increase in losses incurred over the last 10 or 20 years.[14] Again, multiple factors need to be teased apart, such as the growth in population exposed to natural disasters, increased infrastructure replacement costs, natural variability, and the influence of climate change.[15]

Mike MacCracken suggested that issues related to the science itself are distinct from how findings should be communicated to the public. "The challenge," he said, "is finding an effective lexicon that scientists are comfortable with." Along these lines, one participant suggested that it could be helpful to communicate findings framed as a discussion. For example, a farmer could ask a question

saying, "I'm concerned because I'm seeing *this* [particular local weather]." The scientist can comfortably respond: "You're right to be concerned because we are seeing *this*, *this*, and *this* [aggregate effect or strong probability of anthropogenic warming]."

Lew Branscomb, a physicist, governmental policy expert, and one of the meeting's organizers, suggested that the evolution of climate science is an important issue. As he put it, "Absolutely crucial is real progress on regional and local consequences of climate change. We have general notions that the Southwest will be drier. But once the science is able to say with confidence what will happen in the states of Colorado and Arizona, then the people who live there will want to pressure their representatives to fix their problem. Then political people will be much more responsive to the issue. That will be real progress in the next few years."

Determining Appropriate Standards of Evidence

A discussion arose at the workshop about the appropriate standard of evidence required when attributing specific environmental phenomena to global warming and establishing the culpability of carbon emitters and producers. Naomi Oreskes noted the important differences among standards of evidence in science, in law, and in public perception.

As she explained, "When we take these things to the public, I think we often make a category error. We take a standard of evidence applied internally to science and use it externally. That's part of why it is so hard to communicate to the public." Oreskes pointed out that the "95 percent proof rule" widely accepted among scientists might not be appropriate in this application. That standard of proof, she said, "is not the Eleventh Commandment. There is nothing in nature that taught us that 95 percent is needed. That is a social convention. Statistics are often used when we don't understand the mechanisms of causation. But what if we do know what the mechanisms are? For instance, if we know how a bullet kills a human, we don't need statistics to prove that bullets can kill."

Oreskes went on to note that scientific knowledge in the field of climate science is very robust—more robust than in many other fields such as plate tectonics or relativity. This observation led her to wonder why climate scientists have been so reticent about communicating their results, and to postulate that in accepting such a high standard of proof, "The scientific community has been influenced by push-back from industry."

Stanton Glantz drew a comparison to his work with the Centers for Disease Control establishing a link between smoking and breast cancer. "I fought CDC on the links between smoking and breast cancer," he recalled. "There were 17 studies. How could you make a statement that there was no link? The epidemiologists focus on statistics but we already knew about the biology of breast cancer and damage to DNA and links to tobacco. My argument was that you needed to look at a whole body of evidence. . . . We compared the breast cancer evidence, which is stronger than the original lung cancer evidence, and that got accepted and became the default position. But the fact is, not everyone who smokes gets cancer."

For climate change, Glantz said, all the pieces fit together and they represent a consistent body of evidence. He added that criminal trials use the standard of "beyond a reasonable doubt." But as he put it, "Scientists have been making the 'reasonable doubt' standard higher and higher."

Some of the scientists at the workshop, however, took issue with the idea that they

ought to apply different standards of proof to their work. Claudia Tebaldi, for instance, responded, "As a scientist I need to have two different standards? I don't see that. I am not convinced that I should lower my standards of skepticism when I talk to the public. As a scientist I give you the probability. It is not my job to change my paper if the consequences are so bad. That is the job of a policy maker working with my results."

Mary Christina Wood reminded the group that the medical profession is adept at juggling two very different standards: the standard of proof and the standard of care, and suggested that climate scientists might be able to do something similar. Dick Ayres agreed, emphasizing that, "Too high a standard of proof increases the burden on those who seek to protect public health."

Myles Allen noted that a key problem always comes back to the issue of doubt. "If you grab a scientist off the street and ask whether we *could* have had this weather event without global warming, they will likely say yes, it could have been possible. So the reality is that there will always be a scientist available to fill that role in the court of law." The vexing thing, Allen said, is "trying to make clear to the public that there are two uncertainties. We can be very certain about what is happening and yet very uncertain about what is going to happen tomorrow or next year."

Attributing Environmental Damage to Carbon Producers

Richard Heede, co-founder and director of the Climate Accountability Institute, presented a preview of a research project several years in the making, in which he has been quantifying the annual and cumulative global warming emissions attributable to each of the world's major carbon producers. By closely reviewing annual reports and other public sources of information from the energy sector, Heede is working to derive the proportion of the planet's atmospheric carbon load that is traceable to the fossil fuels produced and marketed by each of these companies annually from 1864 to 2010. The work deducts for carbon sequestered in non-energy products such as petrochemicals, lubricants, and road oil, and quantifies annual and cumulative emissions to the atmosphere attributable to each company. The research is still awaiting peer review before it can be finalized and publicized.

Most of the workshop's participants responded positively to Heede's research. Matt Pawa thought the information could prove quite useful in helping to establish joint and several liability in tort cases, but he cautioned that, in practice, a judge would likely hesitate to exert joint and several liability against a carbon-producing company if the lion's share of carbon dioxide in the atmosphere could *not* be attributed to that company specifically. Nevertheless, he said this kind of accounting would no doubt inspire more litigation that could have a powerful effect in beginning to change corporate behavior.

Other participants reacted positively to other aspects of Heede's research. Angela Anderson, director of the climate and energy program at the Union of Concerned Scientists, noted for instance that it could potentially be useful as part of a coordinated campaign to identify key climate "wrongdoers." Mary Christina Wood agreed, saying the preliminary data resonated strongly with her, making her feel like "Polluters did this and they need to clean this up." Other participants noted that it could be helpful in the international realm by changing the narrative that currently holds nations solely responsible for the carbon emitted by parties within their own borders. Finding

the specific companies responsible for emissions, they said, cuts a notably different way.

One concern raised was that some in the "American middle" might perceive it as unfair to go after a company that didn't know carbon dioxide was harmful for much of the extended period Heede reviewed. To get a sense of this, some suggested reaching out to someone like public opinion specialist Tony Leiserowitz who could undertake polling to see how such research might be received by different segments of the public.

Robert Proctor suggested that the most effective public communication about the research would use the simplest formulation possible. One effective strategy in the fight against tobacco, he observed, was equating a year's production of cigarettes in a particular factory to a number of deaths. Anti-tobacco activists determined that there was one smoking-related death for every one million cigarettes produced. As Proctor explained, given that the industry made roughly one cent in profit per cigarette, that meant a company such as Philip Morris made $10,000 in profit for every death its products caused. Proctor suggested a similar strategy could be adapted to link the largest corporate carbon producers to specific climate impacts. If numbers could be generated for how many deaths per year were caused by each degree rise in global temperature, for instance, a similar case could be made against a particular company that produced or emitted a known percentage of the carbon load contributing to global warming.

Picking up on this notion, Naomi Oreskes suggested that some portion of sea level rise could be attributed to the emissions caused by a single carbon-producing company. In essence, she suggested, "You might be able to say, 'Here's Exxon's contribution to what's happening to Key West or Venice.'" Myles Allen agreed in principle but said the calculations required, while not complicated, were easy to get wrong.

Whether or not the attribution would hold up in court, Stanton Glantz expressed some enthusiasm about such a strategy, based on his experience with tobacco litigation. As he put it, "I would be surprised if the industry chose to attack the calculation that one foot of flooding in Key West could be attributed to ExxonMobil. They will not want to argue that you are wrong and they are really only responsible for one half-foot. That is not an argument they want to have." For similar reasons, he said, tobacco companies have never challenged death estimates, noting, "Their PR people tell them not to do that, focusing instead on more general denial and other tactics."

Evidence of Collusion and Prospects for Constructive Engagement

Participants at the workshop also discussed one other aspect of attribution: the close connections among climate change deniers, the fossil fuel industry, and even the tobacco companies. John Mashey, a computer scientist and entrepreneur who has meticulously analyzed climate change deniers, presented a brief overview of some of his research, which traces funding, personnel, and messaging connections between roughly 600 individuals and 100 organizations in the climate change denial camp.[16] Mashey noted that looking closely at the relationships between these parties—via documents, meetings, e-mails, and other sources—can help clarify the extent of collusion involved in sowing confusion on the issue. Mashey cited, for instance, memos that have surfaced from a 1998 "climate denial" plan involving most of the major oil companies (under the auspices of the American Petroleum Institute) that set the

stage for much of the disinformation of the past 10 years.[17]

A number of participants ultimately agreed that the various linkages and attribution data could help build a broad public narrative along the following lines:

- We have a serious problem (as shown by the science)
- We know the people responsible are the same ones responsible for a campaign of confusion
- There are solutions, but we can't get to them because of the confusion these companies have funded

Finally, there was some fundamental disagreement over the potential for engagement with the fossil fuel industry. Richard Heede expressed optimism, saying, "I would love to envision constructive engagement with industry. That would mean convincing them to participate in a plan that 'could make life worth living for future generations.'"

Some veterans of the tobacco control campaign voiced skepticism, however. Stanton Glantz recalled two instances in which activists sought engagement with the industry. In one, the National Cancer Institute met with tobacco companies to try to persuade them to make less dangerous cigarettes. "The tobacco companies used it as an opportunity to undertake intelligence gathering about health groups and it was a disaster," he recalled. Glantz did note a fundamental difference between tobacco and climate change, however: while tobacco companies offer no useful product, he explained, "The fact is we do need some form of energy. Unless other alternative energy firms replace the current carbon producers, which seems unlikely, at some point there will likely have to be some kind of positive engagement. Less clear, however, is how best to create a political environment for that engagement to work."

5. Public Opinion and Climate Accountability

The watershed moment was the congressional hearing when the tobacco companies lied and the public knew it. If that had occurred earlier, the public might not have so clearly recognized that the executives were lying. My question is: What do we know about how public opinion changed over time?

—Peter Frumhoff

Throughout several sessions, workshop participants discussed and debated the role of public opinion in both tobacco and climate accountability. It was widely agreed that, in the case of tobacco control, a turning point in public perception came at the 1994 "Waxman hearings" on the regulation of tobacco products.[18] On this highly publicized occasion, a broad swath of the populace became aware that the heads of the major tobacco companies had lied to Congress and the American public. Naomi Oreskes said tobacco litigation helped make this public narrative possible.

Participants grappled with the question of how climate advocates might create a similar narrative for global warming. While there was a good deal of debate about exactly what such a narrative should be, there was widespread agreement that the public is unlikely to be spurred into action to combat global warming on the basis of scientific evidence alone. Furthermore, climate change science is so complex that skeptics within the scientific community can create doubts in the public mind without any assistance from the fossil fuel industry or other climate change deniers.

The Importance of Creating a Public Narrative

Jim Hoggan, a public relations expert and co-founder of DeSmogBlog.com, explained the problem this way: "The public debate about climate change is choked with a smog of misinformation. Denial and bitter adversarial rhetoric are turning the public away from the issue. Communicating into such high levels of public mistrust and disinterest is tricky. We need to do some research into a new narrative." Hoggan emphasized the importance of linking the industry's "unjust misinformation" back to an overall narrative about sustainability, rather than getting mired in issues of whose fault climate change is and who should do what to ameliorate the situation. Noting the fact that there is broad and deep support for clean energy, Hoggan suggested the following narrative: "Coal, oil, and gas companies are engaging in a fraudulent attempt to stop the development of clean energy."

Many participants agreed about the importance of framing a compelling public narrative. Dick Ayres added that the simple act of naming an issue or campaign can be important as well. After acid rain legislation passed in 1990, he recalled, an industry lobbyist told him, "You won this fight 10 years ago when you chose to use the words 'acid rain.'"

Paul Slovic, a psychologist and expert on risk perception, cited his colleague Daniel Kahneman's book *Thinking, Fast and Slow*, which has shown that people often tend to make snap judgments rather than stopping to analyze.[19] Though a degree of slow thinking is necessary to comprehend climate change, he said, people instead tend to go with their quick first impressions.

Having reviewed two boxes of documents obtained from tobacco marketers by the Justice Department for its RICO case against the tobacco companies, Slovic became convinced that the industry was decades ahead of academic psychologists in understanding the interplay of emotion and reason in decision making. The sophistication of the cigarette makers' approach showed, he said, in the effectiveness with which they used images of beautiful people doing exciting things, or words like "natural" and "light" that conveyed health (in response to mounting evidence of smoking's link to lung cancer).

Slovic emphasized that there are huge differences between tobacco and climate risks. "Every hazard is unique, with its own personality, so to speak," he said. "Does it pose a risk to future generations? Does it evoke feelings of dread? Those differences can make an impact on strategy." The feeling of dread, specifically, was an important feature in people's perception of tobacco risks, since they equated smoking with lung cancer.

Here is one possibility for a public narrative: "Coal, oil, and gas companies are engaging in a fraudulent attempt to stop the development of clean energy."

—Jim Hoggan

This differs from "doom-and-gloom" discussions about climate change, which can tend to turn people off rather than instilling dread. The difference is that climate change risks seem diffuse—distant in both time and location. The situation is even more complicated, Slovic added, by the fact that when people receive a benefit from an activity, they are more inclined to think the risk that activity carries is low. If they receive little benefit, they tend to think the risk is higher. As he explained, "The activities that contribute to climate change are highly beneficial to us. We love them; we are addicted to them." That, he said, makes the problem of communicating the dangers of climate change all the more difficult.

Reaching People "Where They Live"

Several participants emphasized the phenomenon of cultural cognition, including work on the subject by Dan Kahan at Yale Law School.[20] Cultural cognition research suggests that we all carry around with us a vision of a just social order for the world in which we live. Kahan's work identifies a major division between those who tend toward a worldview based on structure and hierarchy, and those who tend toward a worldview based on egalitarianism. Another axis is individualism versus communitarianism (i.e., whether a higher value is placed on the welfare of the individual or the group). In Kahan's conception, all of us have a blend of such attributes.

Attitudes on climate change are highly correlated with these views. As a result, it is difficult to change people's views on the issue because, when they receive information, they tend to spin it to reflect their favored worldview. In light of this research, several participants expressed concern that a revelation about documents from oil companies might not work to change many minds, given the power of such pre-existing worldviews.

Brenda Ekwurzel, a climate scientist at the Union of Concerned Scientists (UCS), recounted her organization's experience with this variable, explaining that UCS, as a science-based organization, contends with an "information fire hose" when it comes to climate change. As she put it, "We love data. We scientists tend to focus on the frontal lobe and we need communications folks to remind us that there are other parts of our brain too." She said she always wants to begin a discussion by saying, "Let's talk about climate change." But that, it turns out, is not necessarily the best starting point—she has learned that it's better to start with: "Let's talk about what you care about most." The answer is likely to be family, friends, livelihood, health, and recreation.

Ekwurzel highlighted polling data that have shown some 77 percent of people in Kahan's egalitarian/communitarian sector believe experts agree about climate change, while 80 percent of those in the hierarchical/individualist camp believe experts disagree about climate change. To overcome that barrier, UCS staff responsible for communicating about climate change began experimenting, in one case addressing an issue of great concern to a very specific constituency: the correlation between August high school football practices in Texas and an increase in heat stroke among the student athletes.

This effort, launched to coincide with the first week of football practice in Texas and Oklahoma, proved remarkably successful, Ekwurzel said, drawing local media attention in a region the organization rarely reached. It also encouraged commentary from a different set of voices than those who normally talk about global-warming-related issues, such as medical professionals. It may have been a coincidence, Ekwurzel admitted, but within six weeks of this campaign the state of Texas decided to scale back high school football practices in the summer—and the message about the consequences of warmer summers in the region reached a largely untapped audience for UCS.[21]

> **Every hazard is unique, with its own personality, so to speak. Does it pose a risk to future generations? Does it evoke feelings of dread? Those differences can make an impact on strategy.**
>
> *—Paul Slovic*

Identifying Wrongdoers

Participants at the workshop also discussed the benefits and risks associated with identifying wrongdoers as part of a public narrative. Some participants, such as Paul Slovic, argued that this could prove an effective strategy. Slovic cited research by Roy Baumeister and Brad Bushman suggesting that, when it comes to messages, "bad is stronger than good"—a finding that helps explain the tendency toward negative advertising in political campaigning.[22] Claudia Tebaldi said she believed "there is a big difference between convincing people there is a problem and mobilizing them. To mobilize, people often need to be outraged."

On the other hand, several of the public opinion experts cautioned that "argument tends to trigger counter-argument." By contrast, they pointed out, emotional messages don't tend to trigger counter-emotions. "Abuse breeds abuse," explained Dan Yankelovich, co-founder of Public Agenda, a nonpartisan group devoted to public opinion research and citizen education. "In this case, you have industry being abusive. But you do not want to demonize the industry. The objective ought to be to have the public take this issue so seriously that people change their behavior and pressure industry to alter their current practices. In the end, we want industry to be more receptive to this pressure, not less."

For this reason and others, several participants expressed reservations about implementing an overly litigious strategy at this political moment. Perhaps the strongest proponent of this view was Yankelovich, who explained, "I am concerned about so much emphasis on legal strategies. The point of departure is a confused, conflicted, inattentive public. Are legal strategies the most effective strategies? I believe they are important after the public agrees how to feel about an issue. Then you can sew it up legally." In the face of a confused, conflicted, and inattentive public, legal strategies can be a double-edged sword, he continued: "The more adversarial the discourse, the more minds are going to be closed." In response to a comment by Richard Ayres, however, Yankelovich agreed that a legal strategy focused on the industry's disinformation campaign could help advance public opinion on global warming, as it did in the case of tobacco.

Jim Hoggan advised, "It's like that old adage that says, 'Never get into a fight with a pig in public. The pig likes it. You both get dirty. And, after a while, people can't tell the difference.'"

I am concerned about so much emphasis on legal strategies. The point of departure is a confused, conflicted, inattentive public. Are legal strategies the most effective strategies? I believe they are important after the public agrees how to feel about an issue. Then you can sew it up legally. Legal strategies themselves are a double-edged sword. The more adversarial the discourse, the more minds are going to be closed.

—Daniel Yankelovich

Dan Yankelovich also described his theory of the "public learning curve," which holds that public opinion moves through three recognizable phases on issues like smoking or climate change. The first is the "consciousness-raising" phase, during which the media can help dramatically to draw attention to an issue. This is followed by the "working-through" phase, during which things bog down as the public struggles over how to adapt to painful, difficult change. Yankelovich noted a paucity of institutions that can help the public work through this phase, which is frequently marked by the kind of denial and wishful thinking recognizable today in public opinion about climate change. He argued that only when the public begins to move into the third phase of "thoughtful public judgment" can legal strategies prove most effective and ultimately produce laws and regulations.

As he explained, "My sense is we are not there yet on climate change. The media has not been a help. The opposition has been successful in throwing sand in the works. People are just beginning to enter the open-minded stage. We are not decades away but I don't have enough empirical data. My sense is that it may take about three to five more years."

The Prospects for a "Dialogic" Approach and Positive Vision

Given the fact that the climate advocacy community has not yet coalesced around a compelling public narrative, Dan Yankelovich suggested that the topic could be a good candidate for engaging in a relatively new public opinion technique known as the "dialogic method," in which representative groups holding different views on a subject meet over the course of a day or more to develop a narrative in an iterative fashion. The benefit of this method, he said, is that climate advocates could essentially work in partnership with the public "by having them help shape a narrative that is compelling."

Yankelovich argued that the narrative must convey deep emotion to cut through the apathy and uncertainty prevalent in public opinion on the issue today, which has made it easier for the fossil fuel industry to sow confusion. In considering these emotional components of the narrative, he noted that anger is likely to be one of the major candidates but there may be others as well, adding that, "The notion of a custodial responsibility and concern also has deep resonance." Finding the right public narrative, Yankelovich suggested, could help accelerate public opinion through the second phase of the curve within the next five years.

In one interesting example of mobilizing public opinion on an issue, Mary Christina Wood drew the group's attention to the "victory speakers" campaign in World War II. When the U.S. government was contemplating entering the war, the threat of Nazi Germany seemed too far away to many Americans, who were reluctant to change their lives to mobilize for war. In response, the government orchestrated a campaign in which some 100,000 speakers, including Wood's mother and grandmother, made five speeches each day about the need for U.S. involvement.[23] Wood suggested that the campaign helped mobilize the American people remarkably quickly.

Finally, several participants voiced strong support for the need to create a positive vision as part of the public narrative about climate change. As Naomi Oreskes put it, citing Ted Nordhaus and Michael Schellenberger's article "The Death of Environmentalism,"[24] "Martin Luther King did not say, 'I have a nightmare'! King looked at a nightmare but he painted a positive vision. Abolitionists did not say, 'We have to collapse the economy of the South,' even if that is what happened. No one wants to hear you are a bad person or that the way you live is bad." Lew Branscomb concurred, noting that, "There has got to be a future people think is worth struggling for."

6. Conclusion

There was widespread agreement among workshop participants that multiple, complementary strategies will be needed moving forward.

Workshop participants unanimously agreed that the sessions yielded a productive and well-timed interdisciplinary dialogue. Participants from the scientific and legal communities seemed especially appreciative for the opportunity to engage so intensively with experts outside their usual professional circles. The only potential gaps identified by attendees were a lack of participants from the insurance industry and a lack of emphasis on the biotic effects of climate change.

Participants made commitments to continue the discussion and collaborate on a number of the efforts discussed at the meeting. In particular, several participants agreed to work together on some of the attribution work already under way, including efforts to help publicize attribution findings in a way that will be easy for the general public to understand, and build an advocacy component around those findings. Others proposed an informal subgroup to pursue Dan Yankelovich's suggestion of using the dialogic method in conjunction with public relations specialists to help develop an effective public narrative.

Participants also made commitments to try to coordinate future efforts, continue discussing strategies for gaining access to internal documents from the fossil fuel industry and its affiliated climate denial network, and to help build an accessible repository for those documents that are obtained.

Points of Agreement

There was widespread agreement among workshop participants that multiple, complementary strategies will be needed moving forward. For instance, in terms of what the "cancer" analog for global warming might be, participants generally accepted the proposition put forth by Angela Anderson that the answer might differ by region, with sea level rise instilling the most concern on the coasts, and extreme heat proving most compelling in the Midwest. Participants also agreed that it is better to focus on consequences of climate change happening now rather than on those projected for the distant future. Brenda Ekwurzel's anecdote about the public's engagement on the issue of high school football was offered as an example of the power that highlighting such immediate consequences can have.

Equally important was the nearly unanimous agreement on the importance of legal actions, both in wresting potentially useful internal documents from the fossil fuel industry and, more broadly, in maintaining pressure on the industry that could eventually lead to its support for legislative and regulatory responses to global warming. Some participants stated that pressure from the courts offers the best

current hope for gaining the energy industry's cooperation in converting to renewable energy.

Dan Yankelovich expressed a widely held sentiment when he noted what he called "a process of convergence" over the course of the workshop, in which participants with different expertise gradually incorporated broader perspectives on the problem at hand. "I know I found the tobacco example and the range of possible legal strategies very instructive," he said.

Unresolved Issues

Perhaps the largest unresolved issues from the workshop were some disagreement over how adversarial in tone efforts targeting the fossil fuel industry should be, and the extent to which outrage can mobilize the public.

On the latter point, one participant noted, "Outrage is hugely important to generate. Language that holds carbon producers accountable should be an important part of the narrative we create." But a number of participants expressed reservations about any plans that "demonized" the fossil fuel industry.

Myles Allen, for instance, worried that too adversarial a tone "could hand a victory to the 'merchants of doubt.'" He explained that because the fossil fuel industry's disinformation has effectively muted a large portion of the electorate, "Our focus ought to be to bring as many of these people back to the table and motivate them to act. We need to somehow promote a debate among different parts of the legislature to get this happening."

Lew Branscomb agreed that efforts should not seek to demonize the fossil fuel industry, noting that, "There are a lot of companies in the oil and auto business, and some of the companies will come forward on the good side. We all need their cooperation. My notion is to try to find people in the industry producing carbon who will come around." To accomplish this, he suggested a strategy that emphasizes facts and doesn't impugn motives.

It is possible to see glimmers of an emerging consensus on a strategy that incorporates legal action with a narrative that creates public outrage.

Brenda Ekwurzel lent some historical support to such a view by citing Adam Hochschild's book *Bury the Chains*, about the long campaign to end slavery. Hochschild noted, she said, that one of the most influential pamphlets published in the abolitionists' fight offered a dispassionate accounting of facts and details about the slave trade gathered from witnesses who had participated in it. This publication had no trace of the moral finger-wagging that had marked virtually all prior pamphlets. Instead, the facts—especially a famous diagram of a slave ship—carried the day and became widely accepted. Women in the United Kingdom, for instance, soon started serving tea using only sugar that had been certified as not having come from the slave trade.[25] "Maybe," Ekwurzel suggested, "we need an analogous effort to offer certified energy sources from suppliers who do not spread disinformation."

Mike MacCracken supported the need to "win the middle." As he noted, "We have had an international consensus of scientists agreeing to key facts since 1990."

Angela Anderson said she hoped UCS could contribute meaningfully to the public's "working-through" stage of the process outlined by Dan Yankelovich. She noted that local climate adaptation stories offer a way to sidestep the controversy, but acknowledged that it is still an open question whether this

strategy helps people work through the issue and ultimately accept climate science as fact. "This is our theory," she said, "But we don't have the research yet to prove this." Anderson added that many people expect UCS, as a science-based organization, to correct misinformation about climate science. "I don't want to abdicate that responsibility," she said, "and I wrestle with this, wondering what is the most effective order in which to do things and the right tone?"

While many questions like these remain unresolved, the workshop made an important contribution to the quest for answers. And it is possible to see glimmers of an emerging consensus on a strategy that incorporates legal action (for document procurement and accountability) with a narrative that creates public outrage—not to demonize industry, but to illuminate the collusion and fraudulent activities that prevent us from building the sustainable future we need and our children deserve.

Endnotes

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Appendix A: Workshop Agenda

Climate Accountability, Public Opinion, and Legal Strategies

Martin Johnson House, Scripps Institution of Oceanography, La Jolla, CA

June 14–15, 2012

Workshop Goals

- Compare the evolution of public attitudes and legal strategies for tobacco control and anthropogenic climate change. Can we use the lessons from tobacco education, laws, and litigation to address climate change?
- Explore which impacts can be most compellingly attributed to climate change, both scientifically and in the public mind, and consider options for communicating the scientific understanding of attribution in ways most useful to inform both public understanding and mitigation strategies.
- Explore the degree to which public (including judge and jury) acceptance of the causal relationships of climate impacts to fossil fuel production and/or emissions would increase the prospects for an effective strategy for U.S.-focused climate mitigation.
- Consider the viability of diverse strategies, including the legal merits of targeting carbon producers—as opposed to carbon emitters—for U.S.-focused climate mitigation.
- Identify promising legal and other options and scope out the development of mutually reinforcing intellectual, legal, and/or public strategies to further them.

June 14, 2012

7:45 a.m. Meet in La Jolla Shores Hotel lobby for shuttle to workshop venue

8:00 a.m. Coffee, light breakfast

8:30 a.m. Welcome and charge to participants

9:00 a.m. **Session 1. The Lay of the Land: Key Issues and Concepts**

Five presentations @ five minutes each, with limit of one image/visual aid; followed by moderated discussion

Proctor: A brief history of the tobacco wars: epidemiology, "doubt is our product," litigation and other strategies

Allen: Climate science and attribution

Heede: Attribution of emissions to carbon producers

Pawa: The legal landscape: fundamentals of law, climate change, damages, plaintiffs, and defendants

Slovic: Public opinion and risk perception on tobacco and climate

10:30 a.m. Break

11:00 a.m. **Session 2. Lessons From Tobacco Control: Legal and Public Strategies**

Three presentations @ seven minutes each, with limit of one image/visual aid; followed by moderated discussion

Sharon Eubanks, Stanton Glantz, Robert Proctor, Roberta Walburn: Litigation, media strategies, coordination with grassroots efforts, etc.

Key issue: What lessons can we draw from the history of public and legal strategies for controlling tobacco that might be applicable to address climate change?

12:30 p.m. Lunch

1:30 p.m. **Session 3. Attribution of Impacts and Associated Damages to Carbon and Climate Change: State of the Science and Expert Judgment**

Two presentations @ less than 10 minutes each; followed by moderated discussion

On science: Myles Allen and Claudia Tebaldi

Lead discussant: Mike MacCracken

Key issue: What impacts can be most compellingly attributed to carbon and climate change?

3:00 p.m. Break

3:15 p.m. **Session 4. Climate Legal Strategies: Options and Prospects**

Three presentations @ seven minutes each; followed by moderated discussion

Presenters: Matt Pawa, Mims Wood, Richard Ayres

Key issues: What potential options for U.S.-focused climate litigation appear most promising? To what extent would greater public (including judge and jury) acceptance of the causal relationships of climate impacts to fossil fuel production and/or emissions enhance the prospects for success?

5:00 p.m. Wrap up

Shuttle service will be provided for the return trip to the hotel

6:30 p.m. Drinks and dinner at the home of Lew and Connie Branscomb

Shuttle will be provided from La Jolla Shores Hotel

June 15, 2012

7:45 a.m. Meet in La Jolla Shores Hotel lobby for shuttle to workshop venue

8:00 a.m. Coffee, light breakfast

8:30 a.m. **Session 5. Attribution of Emissions to Carbon Producers**

Presentation @ 10 minutes; followed by moderated discussion

Heede: Carbon majors analysis

Lead discussant: Matt Pawa

Key issue: Can new analyses increase the prospect for holding major carbon producers legally and publicly accountable?

9:30 a.m. **Session 6. Innovative Strategies for Climate Accountability**

One to two presentations @ seven minutes each; followed by moderated discussion

Jim Hoggan, John Mashey

Key issues: What potential options for U.S.-focused climate litigation appear most promising? To what extent would greater public (including judge and jury) acceptance of the causal relationships of climate impacts to fossil fuel production and/or emissions enhance the prospects for success? What types of non-litigation public pressure might enhance their prospects for success?

11:00 a.m. Break

11:15 a.m. **Session 7. Public Opinion and Climate Accountability**

Moderated discussion drawing from key perspectives in public opinion

Speakers: Dan Yankelovich, Paul Slovic, Brenda Ekwurzel

Key issues: What is the role of public opinion in climate accountability?

12:45 p.m. Lunch

2:00 p.m. **Session 8. Discussion, outcomes, next steps**

4:00 p.m. Wrap up

Shuttle service will be provided for the return trip to the hotel

7:30 p.m. Drinks and dinner at La Jolla Shores Hotel restaurant

Appendix B: Participants

Climate Accountability, Public Opinion, and Legal Strategies Workshop

June 14–15, 2012

Workshop Organizers

Naomi Oreskes
Professor of History and Science Studies, University of California–San Diego
Adjunct Professor of Geosciences, Scripps Institution of Oceanography

Peter C. Frumhoff
Director of Science and Policy, Union of Concerned Scientists
Cambridge, MA

Richard (Rick) Heede
Principal, Climate Mitigation Services
Co-Founder and Director, Climate Accountability Institute
Snowmass, CO

Lewis M. Branscomb
Aetna Professor of Public Policy and Corporate Management (emeritus), John F. Kennedy School of Government, Harvard University

Angela Ledford Anderson
Director, Climate and Energy Program, Union of Concerned Scientists
Washington, DC

Workshop Participants

Myles Allen
Professor of Geosystem Science, School of Geography & the Environment, University of Oxford
Environmental Change Institute, Oxford University Centre for the Environment

Richard (Dick) E. Ayres
Attorney, The Ayres Law Group
Washington, DC

Brenda Ekwurzel
Climate Scientist and Assistant Director of Climate Research and Analysis, Union of Concerned Scientists
Washington, DC

Sharon Y. Eubanks
Advocates for Justice, Chartered PC
Senior Counsel, Sanford Wittels & Heisler, LLP
Washington, DC

Stanton A. Glantz
Professor of Medicine, University of California–San Francisco
University of California Center for Tobacco Control Research & Education

James (Jim) Hoggan
President, Hoggan & Associates
Vancouver, BC

Michael (Mike) MacCracken
Chief Scientist for Climate Change Programs, Climate Institute
Washington, DC

John Mashey
Techviser
Portola Valley, CA

Joseph (Joe) Mendelson III
Director of Policy, Climate and Energy Program, National Wildlife Federation
Washington, DC

Matt Pawa
President, Pawa Law Group, PC
Founder, The Global Warming Legal Action Project
Newton Centre, MA

Robert N. Proctor
Professor of the History of Science, Stanford University

Paul Slovic
Founder and President, Decision Research
Eugene, OR

Claudia Tebaldi
Research Scientist, Climate Central
Boulder, CO

Jasper Teulings
General Counsel/Advocaat, Greenpeace International
Amsterdam

Roberta Walburn
Attorney
Minneapolis, MN

Mary Christina Wood
Philip H. Knight Professor and Faculty Director, Environmental and Natural Resources Law Program, University of Oregon School of Law

Daniel (Dan) Yankelovich
Chair and Co-Founder, Public Agenda
San Diego, CA

Rapporteur

Seth Shulman
Senior Staff Writer, Union of Concerned Scientists
Cambridge, MA

Pictured (L to R): Stanton Glantz, Richard Heede, Roberta Walburn (obscured), James Hoggan, Sharon Eubanks, Peter Frumhoff, Richard Ayres (obscured), Angela Anderson, Mary Christina Wood, Lewis Branscomb, Claudia Tebaldi, Brenda Ekwurzel, Naomi Oreskes, Robert Proctor (obscured), Joseph Mendelson, Seth Shulman, John Mashey (obscured), Myles Allen, Alison Kruger, Michael MacCracken. Not pictured: Matt Pawa, Paul Slovic, Jasper Teulings, Daniel Yankelovich.

Union of Concerned Scientists

Two Brattle Square
Cambridge, MA 02138-3780
(617) 547-5552

Website: *www.ucsusa.org*

CLIMATE ACCOUNTABILITY INSTITUTE

1626 Gateway Road
Snowmass, CO 81654-9214
(970) 927-9511

Website: *www.climateaccountability.org*

Exhibit D

From: **Kenny Bruno** <kenny.bruno@verizon.net>
Date: Tue, Jan 5, 2016 at 4:42 PM
Subject: Exxon meeting DRAFT Agenda and logistics
To: Lee Wasserman <lwasserman@rffund.org>, Bill McKibben <bill.mckibben@gmail.com>, Jamie Henn <jamie@350.org>, Rob Weissman <rweissman@citizen.org>, Bill Lipton <blipton@workingfamilies.org>, Dan Cantor <dcantor@workingfamilies.org>, John Passacantando <j.passacantando@gmail.com>, Kert Davies <kertmail@gmail.com>, won@ef.org, SEubanks@bordaslaw.com, ikrarup@vkrf.org, mp@pawalaw.com, bcampbell@clf.org, Stephen Kretzmann <steve@priceofoil.org>, Carroll Muffett <cmuffett@ciel.org>, Naomi Ages <naomi.ages@greenpeace.org>

Dear All,
If you are receiving this message then we believe you are attending the meeting this coming Friday Jan 8 regarding Exxon.
The meeting will take place at:
Rockefeller Family Fund
475 Riverside Dr entrance on Claremont @ 120th St. in Upper Manhattan, 1 Train to 116th St. from Penn Station
Please confirm whether you are attending in person (preferred, of course!) or remotely. If remotely see instructions below.
Here is a DRAFT Agenda, your suggestions are welcome.

DRAFT Agenda
Exxon: Revelations & Opportunities
Friday January 8 11 AM – 3 PM
475 Riverside Dr @ 120th ST Manhattan
10:45: Arrival and Coffee
11:00 – 11:15 Introductions and purpose of the meeting (Lee)
11:15-12:00 – Goals of an Exxon campaign
What are our common goals? Examples include:

- To establish in public's mind that Exxon is a corrupt institution that has pushed humanity (and all creation) toward climate chaos and grave harm.
- To delegitimize them as a political actor
- To force officials to disassociate themselves from Exxon, their money, and their historic opposition to climate progress, for example by refusing campaign donations, refusing to take meetings, calling for a price on carbon, etc.
- To call into question climate advantages of fracking, compared to coal.
- To drive divestment from Exxon.
- To drive Exxon & climate into center of 2016 election cycle.

Exhibit E

Morgan, Wendy

From: Morgan, Wendy
Sent: Friday, March 18, 2016 6:06 PM
To: 'Michael Meade'
Subject: RE: Clean Power Plan and Exxon Mobil

Great – thx

From: Michael Meade [mailto:Michael.Meade@ag.ny.gov]
Sent: Friday, March 18, 2016 5:43 PM
To: Kline, Scot <scot.kline@vermont.gov>; Morgan, Wendy <wendy.morgan@vermont.gov>
Cc: Brian Mahanna <Brian.Mahanna@ag.ny.gov>; Peter Washburn <Peter.Washburn@ag.ny.gov>; Damien LaVera <Damien.LaVera@ag.ny.gov>; Natalia Salgado <Natalia.Salgado@ag.ny.gov>; Lemuel Srolovic <Lemuel.Srolovic@ag.ny.gov>; Eric Soufer <Eric.Soufer@ag.ny.gov>; Daniel Lavoie <Daniel.Lavoie@ag.ny.gov>
Subject: RE: Clean Power Plan and Exxon Mobil

AG Frosh from Maryland will also be joining. That's puts us at 6 AG's present for the press conference—and 13 states participating in the meetings.

Have a great weekend!

Mike

From: Michael Meade
Sent: Thursday, March 17, 2016 3:55 PM
To: 'Kline, Scot'; Morgan, Wendy
Cc: Brian Mahanna; Peter Washburn; Damien LaVera; Natalia Salgado; Lemuel Srolovic
Subject: RE: Clean Power Plan and Exxon Mobil

I wanted to send around some additional thoughts regarding who may do what on 3/29. We can hopefully talk about this some more at 4:00.

Monday, March 28 (Optional)
6:00-8:00
Happy Hour with EPB and visiting AAG's

Attorneys General Climate Change Meeting

Date: **March 29, 2016**

Location: 120 Broadway, New York, NY

Schedule:

9:00 to 9:30 – Welcome (breakfast provided) <Lem Kicks off meeting and staff intros>

9:30 to 10:15 – Peter Frumhoff, Union of Concerned Scientists, presentation on imperative of taking action now on climate change (AGs and staff only) <Lem Introduces Peter>

10:15 to 10:30 – break

10:30 to 11:15 – Pawa Law office presentation regarding climate change litigation (AGs and staff only) <VT Introduces Pawa>

11:15 to 11:30 – break

11:30 am to 12:30 – press conference around AG climate change coalition's support of federal Clean Power plan and other climate change actions (Attending AGs) <Mike to coordinate- AG's participating, staff sitting in audience>

12:30 to 1:00 – lunch and follow-up from morning (lunch provided)

1:00 to 1:45 – NY AG office presentation regarding fossil fuel company disclosure investigations (AGs and staff only) <NY facilitates>

1:45 to 2:45 – closed working session (AGs and staff only) <VT & NY >

- Sharing of AG office activities
- Discussion of expanding coalition work beyond "EPA-practice," e.g., investigations of fossil fuel company disclosures, utility efforts to barrier renewables.

2:45 to 3:00 – break

3:00 to 4:30 – Continued--closed working session (AGs and staff only) <VT & NY>

- Continued discussion
- Coalition next steps

4:30 – end.

From: Kline, Scot [mailto:scot.kline@vermont.gov]
Sent: Tuesday, March 15, 2016 12:06 PM
To: Michael Meade; Morgan, Wendy
Cc: Brian Mahanna; Peter Washburn; Damien LaVera; Natalia Salgado; Lemuel Srolovic
Subject: RE: Clean Power Plan and Exxon-Mobil

Mike:

We are good with the new agenda. One item we should discuss more in our next call is the structuring of the afternoon discussion and who will facilitate it.

Thanks.

Scot

From: Michael Meade [mailto:Michael.Meade@ag.ny.gov]
Sent: Monday, March 14, 2016 5:18 PM

To: Morgan, Wendy <wendy.morgan@vermont.gov>; Kline, Scot <scot.kline@vermont.gov>
Cc: Brian Mahanna <Brian.Mahanna@ag.ny.gov>; Peter Washburn <Peter.Washburn@ag.ny.gov>; Damien LaVera <Damien.LaVera@ag.ny.gov>; Natalia Salgado <Natalia.Salgado@ag.ny.gov>; Lemuel Srolovic <Lemuel.Srolovic@ag.ny.gov>
Subject: RE: Clean Power Plan and Exxon Mobil

I made the changes you suggested below. If it looks okay to this group, we can circulate tomorrow.

Draft Schedule for Attorneys General Climate Change Meeting

Date: March 29, 2016

Location: 120 Broadway, New York, NY

Schedule:

9:00 to 9:30 Welcome (breakfast provided)

9:30 to 10:15 – Peter Frumhoff, Union of Concerned Scientists, presentation on imperative of taking action now on climate change (AGs and staff only)

10:15 to 10:30 – break

10:30 to 11:15 Pawa Law office presentation regarding climate change litigation (AGs and staff only)

11:15 to 11:30 – break

11:30 am to 12:30 – press conference around AG climate change coalition's support of federal Clean Power plan and other climate change actions (Attending AGs)

12:30 to 1:00 – lunch and follow-up from morning (lunch provided)

1:00 to 1:45 – NY AG office presentation regarding fossil fuel company disclosure investigations (AGs and staff only)

1:45 to 2:45 – closed working session (AGs and staff only)

- Sharing of AG office activities
- Discussion of expanding coalition work beyond "EPA-practice," e.g., investigations of fossil fuel company disclosures, utility efforts to barrier renewables.

2:45 to 3:00 – break

3:00 to 4:30 – Continued--closed working session (AGs and staff only)

- Continued discussion
- Coalition next steps

4:30 – end.

From: Morgan, Wendy [mailto:wendy.morgan@vermont.gov]
Sent: Friday, March 11, 2016 9:33 AM
To: Michael Meade; Kline, Scot
Cc: Brian Mahanna; Peter Washburn; Damien LaVera; Natalia Salgado; Lemuel Srolovic
Subject: RE: Clean Power Plan and Exxon-Mobil

Thanks! I like the clarity on who is invited to what

My two thoughts are:

11:30 am to 12:30 noon – is a little ambiguous do you mean 1230pm?

I also wonder about the afternoon break – I'd put NY and start the staff discussion and have a break closer to 245 – that also allows us to divide the discussion into parts more easily (keep us on track) – maybe identifying those parts should be our next Thursday agenda item?

Have a good weekend -- Wendy

From: Michael Meade [mailto:Michael.Meade@ag.ny.gov]
Sent: Thursday, March 10, 2016 5:27 PM
To: Kline, Scot <scot.kline@vermont.gov>; Morgan, Wendy <wendy.morgan@vermont.gov>
Cc: Brian Mahanna <Brian.Mahanna@ag.ny.gov>; Peter Washburn <Peter.Washburn@ag.ny.gov>; Damien LaVera <Damien.LaVera@ag.ny.gov>; Natalia Salgado <Natalia.Salgado@ag.ny.gov>; Lemuel Srolovic <Lemuel.Srolovic@ag.ny.gov>
Subject: RE: Clean Power Plan and Exxon-Mobil

Wendy and Scott—

Here's our latest agenda. If you are okay with it, then we'll start sharing with other offices.

Best,
Mike

Draft Schedule for Attorneys General Climate Change Meeting

Date: March 29, 2016

Location: 120 Broadway, New York, NY

Schedule:

9:00 to 9:30 – Welcome (breakfast provided)

9:30 to 10:15 – Peter Frumhoff, Union of Concerned Scientists, presentation on imperative of taking action now on climate change (AGs and staff only)

10:15 to 10:30 – break

10:30 to 11:15 – Pawa Law office presentation regarding climate change litigation (AGs and staff only)

11:15 to 11:30 – break

11:30 am to 12:30 – press conference around AG climate change coalition's support of federal Clean Power plan and other climate change actions (Attending AGs)

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1:45 to 2:45 – closed working session (AGs and staff only)

- Sharing of AG office activities
- Discussion of expanding coalition work beyond "EPA-practice," e.g., investigations of fossil fuel company disclosures, utility efforts to barrier renewables.

2:45 to 3:00 – break

3:00 to 4:30 Continued--closed working session (AGs and staff only)

- Continued discussion
- Coalition next steps

4:30 – end.

From: Lemuel Srolovic
Sent: Thursday, February 25, 2016 10:22 AM
To: 'Kline, Scot'; Morgan, Wendy
Cc: Brian Mahanna; Michael Meade; Peter Washburn; Damien LaVera; Natalia Salgado
Subject: RE: Clean Power Plan and Exxon Mobil

Scot and Wendy – Looking forward to our conversation at 11. Here's our initial thinking about the schedule for the event.

Draft Schedule for Attorneys General Climate Change Meeting at NY AG's Office

Date: On or about April 1, 2016

Location: 120 Broadway, New York, NY

Schedule:

11 am to 12 noon – press conference around AG climate change coalition's support of federal Clean Power plan and other climate change actions

12 noon to 1:30 – follow-on media time and lunch

1:30 to 2:15 - NY AG office presentation regarding fossil fuel company investigations (AGs and staff only)

2:15 to 2:30 – break

2:30 to 3:15 – Pawa Law office presentation regarding climate change litigation (AGs and staff only)

3:15 to 3:30 - break

3:30 to 4:30 – closed session AG office discussion

4:30 – end.

From: Kline, Scot [mailto:scot.kline@vermont.gov]
Sent: Tuesday, February 23, 2016 3:40 PM
To: Lemuel Srolovic
Cc: Morgan, Wendy; Brian Mahanna; Tasha L. Bartlett
Subject: RE: Clean Power Plan and Exxon-Mobil

Lem:

Wendy has developed a conflict for the Thursday call at 11:30. We are wondering whether you and Brian can do the call earlier that morning – 11 or earlier?

Thanks.

Scot

From: Lemuel Srolovic [mailto:Lemuel.Srolovic@ag.ny.gov]
Sent: Thursday, February 18, 2016 10:04 PM
To: Kline, Scot <scot.kline@vermont.gov>
Cc: Morgan, Wendy <wendy.morgan@vermont.gov>; Brian Mahanna <Brian.Mahanna@ag.ny.gov>; Tasha L. Bartlett <Tasha.Bartlett@ag.ny.gov>
Subject: Re: Clean Power Plan and Exxon-Mobil

Scot -- thanks for update. We'll draft possible run of conference day. Look forward to our next conversation. Lem

Sent from my iPhone

On Feb 18, 2016, at 3:42 PM, Kline, Scot <scot.kline@vermont.gov> wrote:

> Lem and Brian:
>
> Wendy and I connected with our AG. He thinks what we talked about today makes sense. We are good with doing the event in NY. Bill recalled that the videotaping for individual AG's was done by AARP at an event. So that was not a regular press event. Sounds like a more traditional press event might be more in line with our event.

If you can get us a preliminary draft of the conference day, that would be helpful. Also, maybe we can target some possible dates for the event in next week's call.

Thanks.

Scot

From: Lemuel Srolovic [mailto:Lemuel.Srolovic@ag.ny.gov]
Sent: Wednesday, February 17, 2016 10:13 AM
To: Kline, Scot <scot.kline@vermont.gov>; Morgan, Wendy <wendy.morgan@vermont.gov>
Cc: Brian Mahanna <Brian.Mahanna@ag.ny.gov>; Tasha L. Bartlett <Tasha.Bartlett@ag.ny.gov>
Subject: RL: We Need to Reschedule This Afternoon's Conversation

Excellent! Please call Brian Mahanna's line at 212-416-8579. Speak with you tomorrow, Lem

From: Kline, Scot [mailto:scot.kline@vermont.gov]
Sent: Wednesday, February 17, 2016 8:35 AM
To: Lemuel Srolovic; Morgan, Wendy
Subject: RE: We Need to Reschedule This Afternoon's Conversation

Lem.

Thursday from 2-3 works on this end.

Should we call you? If so, let me know what number.

Thanks.

Scot

From: Lemuel Srolovic [mailto:Lemuel.Srolovic@ag.ny.gov]
Sent: Tuesday, February 16, 2016 6:34 PM
To: Kline, Scot <scot.kline@vermont.gov>; Morgan, Wendy <wendy.morgan@vermont.gov>
Subject: RE: We Need to Reschedule This Afternoon's Conversation

Scot and Wendy – wow, for us working this school vacation week here in NYS, it's a bit crazy!

Our deputy chief of staff is now tied up tomorrow at 4. Here's what he and I have free:

Tomorrow at 5:30

Thursday 2-3

Friday before 11.

Hopefully one of these works for you two.

Sorry this is proving to be hard to land.

Lem

From: Kline, Scot [mailto:scot.kline@vermont.gov]
Sent: Tuesday, February 16, 2016 4:54 PM
To: Morgan, Wendy
Cc: Lemuel Srolovic
Subject: Re: We Need to Reschedule This Afternoon's Conversation

Okay here.

Sent from my iPhone

On Feb 16, 2016, at 4:52 PM, Morgan, Wendy <wendy.morgan@vermont.gov> wrote:

> I can make it work for me.
>
> **From:** Lemuel Srolovic [mailto:Lemuel.Srolovic@ag.ny.gov]
> **Sent:** Tuesday, February 16, 2016 4:48 PM
> **To:** Kline, Scot <scot.kline@vermont.gov>
> **Cc:** Morgan, Wendy <wendy.morgan@vermont.gov>
> **Subject:** RE: We Need to Reschedule This Afternoon's Conversation
>
> Hi Scot and Wendy – sorry I missed the e mail regarding today at 4? Does tomorrow at 4 still work for you? Regards, Lem
>
> **From:** Kline, Scot [mailto:scot.kline@vermont.gov]
> **Sent:** Tuesday, February 16, 2016 3:25 PM
> **To:** Lemuel Srolovic
> **Cc:** Morgan, Wendy
> **Subject:** Re: We Need to Reschedule This Afternoon's Conversation
>
> Lem:
> Are we on for a call at 4 today? Thanks.
> Scot
>
> Sent from my iPhone
>
> On Feb 15, 2016, at 4:25 PM, Kline, Scot <scot.kline@vermont.gov> wrote:
>
> > Lem: Let's try for tomorrow at 4. We may need a call in number if the weather is bad as expected here -- Wendy and I may be calling in from different locations.
> > Thanks. Scot
> >
> > Sent from my iPhone
> >
> > On Feb 13, 2016, at 7:20 AM, Lemuel Srolovic <Lemuel.Srolovic@ag.ny.gov> wrote:
> >
> > > Scot -- we can do either Tue or Wed at 4. Preference?

Have a good weekend. Winter now for sure!

Lem

Sent from my iPhone

On Feb 9, 2016, at 2:24 PM, Kline, Scot <scot.kline@vermont.gov> wrote:

> Lem:
>
> No problem. Let's shoot for Tuesday or Wednesday of this coming week. Tuesday morning until 10 or late afternoon (4 p.m. on) or Wednesday from 4 on, should work here. Wendy's schedule is a bit up in the air because of legislative work.
>
> Just so you know, we circled back with our AG and the thought on this end is for something scaled down and focused more on Exxon Mobil without a lot of publicity. Maybe an invite or two to the outside for a presentation. It would be an opportunity for states to hear about Exxon-Mobil and your efforts, and explore whether there is interest in doing something together as a group or supporting you in whatever way makes sense.
>
> Please let us know if one of the above times works for you. If not, please suggest some others.
>
> Thanks.
>
> Scot
>
> **From:** Lemuel Srolovic [mailto:Lemuel.Srolovic@ag.ny.gov]
> **Sent:** Tuesday, February 09, 2016 1:10 PM
> **To:** Kline, Scot <scot.kline@vermont.gov>
> **Subject:** We Need to Reschedule This Afternoon's Conversation

Scot (and Wendy) – sorry for late notice but we need to re-schedule this afternoon's group call. Something's come up today that's engaging our exec folks.

Could we re-schedule to Tue/Wed. of next week? We're working on framing and substance and want to keep the ball moving forward.

Sorry again for inconvenience.

Lem

Lemuel M. Srolovic
Bureau Chief
Environmental Protection Bureau
New York State Attorney General
212-416-8448 (o)
917-621-6174 (m)
lemuel.srolovic@ag.ny.gov

Exhibit F

Kline, Scot

From: Lemuel Srolovic <Lemuel.Srolovic@ag.ny.gov>
Sent: Wednesday, March 30, 2016 9:01 PM
To: Matt Pawa
Cc: Kline, Scot
Subject: Re: Wall st journal

My ask is if you speak to the reporter, to not confirm that you attended or otherwise discuss the event.

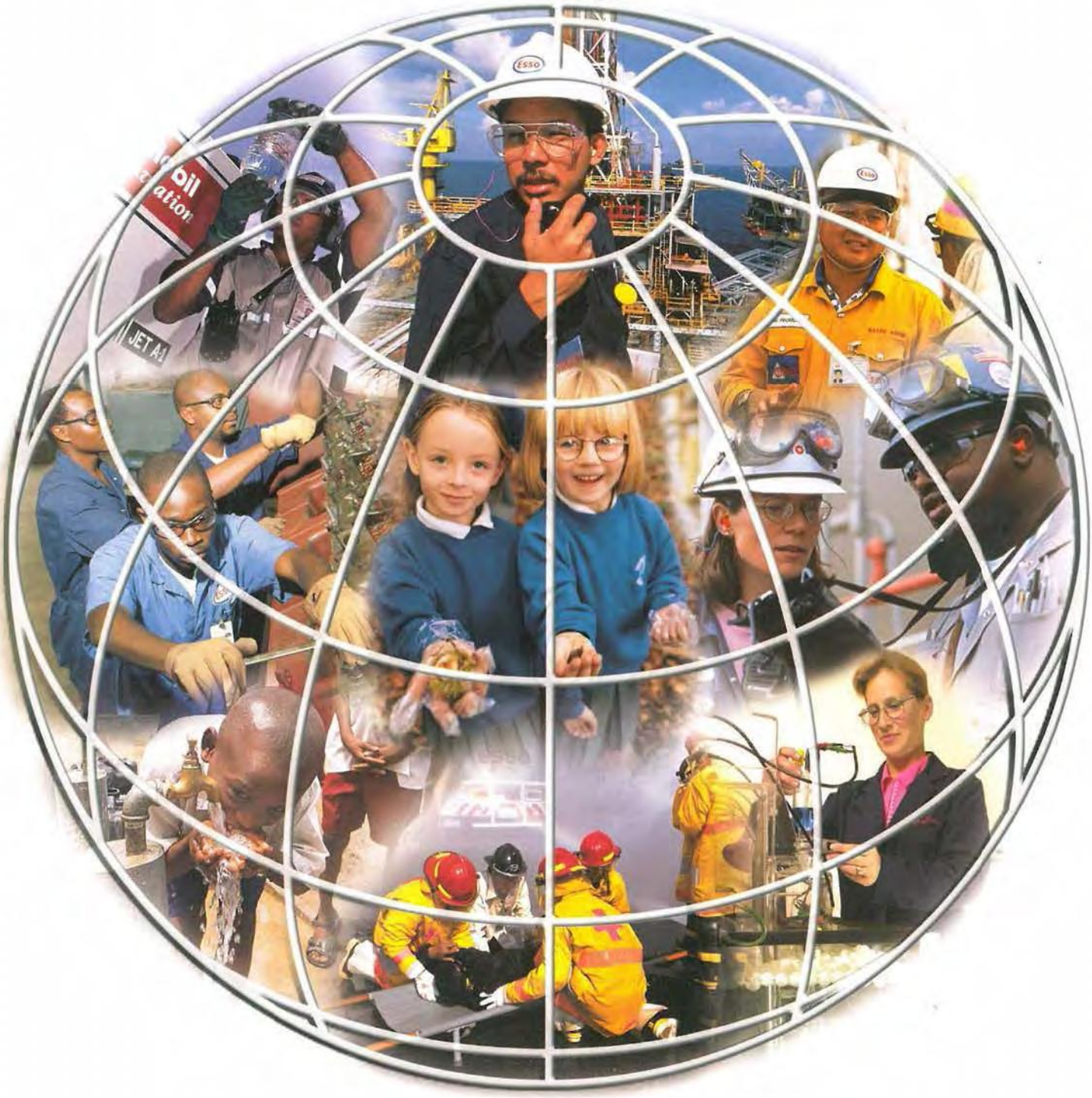
Sent from my iPhone

> On Mar 30, 2016, at 6:31 PM, Matt Pawa <mp@pawalaw.com> wrote:
>
> Lem and Scot - a WSJ reporter wants to talk to me. I may not even talk to her at all but if I do I obviously will have no comment on anything discussed at the meeting. What should I say if she asks if I attended? No comment? Let me know.
>
> MP
>
> Matt Pawa
> Pawa Law Group, P.C.
> 1280 Centre Street, Suite 230
> Newton Centre, MA 02459
> (617) 641-9550
> (617) 641-9551 facsimile
> www.pawalaw.com

Exhibit G

ExxonMobil

Corporate citizenship in a changing world



May 2002

CONTENTS

ExxonMobil's long tradition of success requires a deep respect for and an understanding of what our role in society should be. Our core principles provide the basis for our commitments to communities, customers, employees and shareholders. Meeting our commitments to these varied interests is critical to our success. We perform at our best when we maximize the contribution we make across all of these areas, and striving to do so sustainably is what corporate citizenship is all about.

Corporate citizenship in a changing world

ExxonMobil does business in nearly 200 countries and territories on six continents. For more than 120 years we have provided energy and products that have contributed to economic growth and helped improve the lives of billions of people around the world.

Energy use grows as economic prosperity increases. And there is a proven link between economic development and advances in societal welfare and environmental improvement — particularly in the developing areas of the world.

To do business successfully for this long and on this scale requires that we be at the leading edge of competition in every aspect of our business. This requires that ExxonMobil's substantial resources — financial, operational, technological and human — be employed wisely and evaluated regularly.

While we maintain flexibility to adapt to changing conditions, the nature of our business requires a focused, long-term approach. We consistently strive to improve our performance in all aspects of our operations through learning, sharing and implementing best practices.

And to do business successfully for this long and on this scale also requires a deep respect for and understanding of different people and cultures, and a keen appreciation of what our role in society should be.

Social responsibility may be a comparatively new term now applied to corporations, but it is not a new concept for us. For many decades, ExxonMobil has rigorously adhered to policies and practices that guide the way we do business. The methods we employ to achieve results are as important as the results themselves.

We pledge to be a good corporate citizen in all the places we operate worldwide. We will maintain the highest ethical standards, comply with all applicable laws and regulations, and respect local and national cultures. We are dedicated to running safe and environmentally responsible operations.

Like other global companies, ExxonMobil is called upon to address an ever-broadening range of issues and challenges. The resourcefulness, professionalism and dedication of the directors, officers and employees of ExxonMobil make it possible for us to

meet these challenges. We have a well-trained, culturally diverse workforce focused on performance and proud of its high standards of safety and integrity.

This report describes how we translate our commitment to good corporate citizenship into action. I hope you will find it both interesting and helpful.

Sincerely,

Lee Raymond

Lee R. Raymond
CEO and Chairman

Technology enables progress

Over the last 120 years ExxonMobil has evolved from a regional marketer of kerosene in the U.S. to the largest petroleum and petrochemical enterprise in the world. Much has changed in that time. When we began, transportation was by horse-drawn wagon. Two decades passed before the Duryea brothers perfected their early gasoline-powered autos and the Wright brothers experimented with airplanes. Making products for the space program was, obviously, beyond imagining.

Today we operate in nearly 200 countries and territories and are best known by our familiar brand names: *Exxon*, *Esso* and *Mobil*. We make the products that drive modern transportation, power cities, lubricate industry and provide the petrochemical building blocks that lead to thousands of consumer goods.

As society's needs have changed and products have evolved, our commitment to technology and innovation has allowed us to continuously meet the world's needs for energy and petrochemicals.

1903 Wilbur and Orville Wright make a successful flight using our gasoline.

1926 Premium brand *Esso* motor gasoline goes on sale.

1954 Our lubricants sail on the *USS Nautilus*, the first atomic-powered submarine.

1893 The company lubricates the Duryea brothers' gasoline-powered automobile.

1906 We develop Mei-Foo lanterns to burn kerosene efficiently. These lamps were imported by the millions throughout China.

1927 Charles Lindbergh uses *Mobiloil* in the *Spirit of St. Louis*, on the first solo flight across the Atlantic.

1880 | 1890 | 1900 | 1910 | 1920 | 1930 | 1940 | 1950

1886 Herman Frasch, our first research chemist, discovers how to remove sulfur from kerosene. Low sulfur technology is still used today to make clean-burning gasoline.

1901 We help develop the Spindletop oil field near Beaumont, Texas. Spindletop's discovery tripled U.S. oil production and marked the beginning of the modern petroleum industry.

1920 The company makes isopropyl alcohol, the first commercial petrochemical. Isopropyl alcohol is used in cosmetics and rubbing alcohol.

1946 We establish the first-in-industry occupational health organization to foster a safe work environment. Today more than 500 employees are devoted to safety, health and environment related science.

1900 The first-in-industry product development laboratory leads to a century of breakthrough new product discoveries.

1930s We invent butyl rubber. Today ExxonMobil is the world's leading producer of this product, used in tire innerliners due to its exceptional air retention properties.

1938 We invent fluid catalytic cracking, which *Fortune Magazine* calls the most important chemical innovation in the first half of the 20th century. The process helped fuel Allied war planes and today makes clean fuels for cars, trucks and planes.

ExxonMobil's commitment to technology development and commercialization has fueled its growth to become the world's leading petroleum and petrochemical company. The company has three core business areas: ***Upstream*** — exploration, development and production of oil and natural gas, and natural gas marketing; ***Downstream*** — refining and marketing of petroleum products such as motor gasoline and lubricants; and ***Chemical***.

Upstream

ExxonMobil explores for oil and natural gas on six of the seven continents. As a result of its technology breakthroughs, the company is a leader in deepwater development in waters deeper than 4,000 feet. We produce more than four million oil-equivalent barrels per day from about 30,000 wells in 25 countries. The company has 72 billion oil-equivalent barrels of petroleum and natural gas resources located in some 40 countries.

Downstream

ExxonMobil's downstream business includes 46 refineries in 26 countries that supply 6.3 million barrels per day of refined products. We have ownership interests in more than 300 terminals that provide storage as products move to the 43,000 branded service stations, 700 airports and 300 seaports. Under the *Mobil*, *Exxon* and *Esso* names, we provide leading-edge conventional and synthetic finished lubricants. An active research effort on next generation ultra-low emission fuels and fuel cells is underway.

Chemical

ExxonMobil Chemical Company manufactures petrochemical products that are the building blocks for thousands of packaging, consumer, automotive, industrial, medical, electrical and construction materials that make life better for people around the world. It has 54 major plants in 19 countries. Technology breakthroughs in "smart" catalysts allow creation of "designer" plastics to fit specific product applications.

1964 "Put a Tiger in Your Tank" advertising campaign starts.

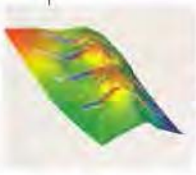
1970 Introduction of the first synthetic lubricant extends engine life.

1997 We introduce *SpeedPass*, which brings convenience to gasoline customers.

2000 Our special lubricants aboard the International Space Station enable space walks.

1960 | 1970 | 1980 | 1990 | 2000

1965 We set a record for the deepest offshore oil production. Subsequent records were set in 1968, 1970, 1972 and 1977. Deepwater drilling discoveries are producing new supplies to meet the world's growing demand for oil and gas.



1964 Our invention of 3-D seismic technology allows a visual picture of subsurface oil and gas reserves that enables new oil discoveries at reduced cost.

1980s Work commences with Toyota on next generation fuels for hybrid engines and fuel cells. These technologies offer the potential for high performance with near-zero greenhouse gas emissions.

1980s Metallocene catalysts allow for development of "designer" plastics and synthetic rubber molecules that can be custom built to fit a variety of consumer goods, ranging from car bumpers to wine corks.

2001 Our latest generation subsurface reservoir computer simulation modeling — EM[PowerSM] — allows geologists to predict the movement of oil over time to maximize the amount of oil produced and reduce the number of oil wells.

Guiding principle:

The way we conduct our business is as important as the results themselves. Integrity is the cornerstone of corporate citizenship. We expect everyone — directors, officers, employees and suppliers acting on our behalf — to observe the highest standards of ethics.

At ExxonMobil we have long recognized the importance and value of business integrity. The means by which we achieve our results are just as important as the results themselves. We have communicated this message for decades and remind all of our employees of this policy every year. Our ethics policy, like all of our policies, is clear-cut, straightforward and applies to everyone without exception.

The strength of any policy lies in how well it is implemented. At ExxonMobil, we not only test the effectiveness of our ethics policy, we also ensure that proven management control systems are in place throughout our operations. While we continue to improve upon these systems, they provide the basic framework for ensuring operational excellence throughout our company. We believe that a disciplined approach to managing the business is good business.

Board of Directors

The Board of Directors oversees the business affairs of the Corporation. To ensure independence and objectivity, a substantial majority of the board members are non-employees. Five of the seven board committees consist entirely of non-employee directors. The Board Audit Committee is empowered to investigate any matter brought to its attention — with full access to all books, records, facilities and personnel of the Corporation.

Standards of Business Conduct

The *Standards of Business Conduct* is at the heart of our controls system. These policies were first published nearly 40 years ago and have been continually enhanced over the years. The policies deal with business ethics, conflicts of interest, antitrust, equal employment opportunity, harassment in the workplace, and safety, health and environmental performance.

A disciplined approach

A disciplined system of business controls guides how we work. It stresses open communication, policies and procedures regarding ethics and other standards of business conduct, proper recording of business transactions, and protection of company assets. No employee, regardless of position, is exempt.

Straightforward system of controls

A System of Management Controls – Basic Standards document provides the basic criteria for managers to establish effective controls. The system addresses organizational structure, formation of business entities, control of financial instruments, and standards for foreign-exchange operations.

Employee authority

Specific procedures outline authority that employees do and don't have, thereby ensuring that business transactions are approved and executed by the appropriate level of management.

Employee dialogue identifies potential problems and improvements.

Business practices reviews
Managers also regularly review and discuss the *Standards of Business Conduct* in employee meetings. Employees are encouraged to raise any issue, question or concern with their direct supervisor or representatives of Audit, Human Resources, Law or Controller's.

Formal reporting requirements
Despite the presence of sound management controls, we recognize that with operations in almost 200 countries and territories, there may be violations of company policies. If a problem occurs, the appropriate managers promptly review the incident and take consistent disciplinary action. Upward reporting guidelines, which extend to the Corporation's Management Committee and Board of Directors, ensure appropriate management review.

Management representation letters
Managers of each organization are required to annually confirm in writing their compliance with our *Standards of Business Conduct*, and financial reporting standards.

Auditing and compliance
The Internal Audit staff independently assesses compliance with policies and procedures, and evaluates the effectiveness of all financial and related controls. Managers are obligated to evaluate all Internal Audit findings and recommendations and take appropriate action. About 300 audits are conducted annually across all business units.

Independent external auditors review corporate financial statements to ensure accuracy and conformity with generally accepted accounting principles.

Specific procedures outline employee authority, thereby ensuring that transactions are properly approved and executed.

ExxonMobil takes many steps to assure the independence of external auditors. For example, we strictly control and review their work on other projects with the Board Audit Committee.

Safety, health and environmental compliance
Many of our operations and products, while vital to the world's interests, present potential risks to our employees and customers, and to the community. Managing such risks is a critical aspect of our business. In 1992 we developed the Operations Integrity Management System, or OIMS, a comprehensive, structured process to manage these safety, health and environmental activities. Under OIMS, management, with support from technical experts, regularly assesses operations. Each year, about one-third of ExxonMobil's major operations are reviewed by experts from outside the organization being evaluated.

Under OIMS, we review specific hazards that we believe could have major incident potential and take steps to mitigate risks. (See next section for a more complete discussion of OIMS.)

Drug and alcohol use
Alcohol, drug or other substance abuse by employees impairs performance and safety. The use or possession of illegal drugs, misuse of legitimate drugs, and use or possession of unprescribed controlled drugs on company business or premises, or being unfit for work due to drug or alcohol use are strictly prohibited. Today, no employee with a history of substance abuse will be permitted to work in a position critical to the safety and well being of employees, the public or ExxonMobil.

Guiding principle:

ExxonMobil is committed to maintaining high standards of safety, health and environmental care. We comply with all applicable environmental laws and regulations, and apply reasonable standards where laws and regulations do not exist. Energy and chemicals are essential to economic growth, and their production and consumption need not conflict with protecting health and safety or safeguarding the environment. Our goal is to drive injuries, illnesses, operational incidents and releases as close to zero as possible.

We care deeply about how our products and operations affect our employees, neighbors and customers. Our products, properly used, provide great benefit to society. We know our neighbors have a direct interest in how well we operate.

While our operations do involve risks, such risks can be substantially reduced if managed properly. We spend considerable time, effort and money to do so.

Valdez: reflections on learning and improving

We have learned from the events of the 1989 Valdez oil spill. It was a terrible accident everyone in our company regrets. From the onset of the event to today, we have accepted responsibility for the accident and sought to mitigate its impacts. As a result, we committed to build into the fabric of our company a continuous improvement program to make what were already industry-leading environmental protection policies pre-Valdez even stronger. We have helped establish and fund a worldwide network of oil spill cooperatives and stockpiled our own equipment for rapid response. Moreover, we have continued and expanded our research on dispersants and bioremediation techniques to speed environmental recovery should a spill occur.

Most important, we initiated a comprehensive program — Operations Integrity Management System (OIMS) — to manage risk and help prevent all types of incidents in the future. Today OIMS has become the respected benchmark approach for the prevention of incidents.

OIMS provides a framework for meeting our commitments to the highest operational standards of safety, health, product safety and environmental protection. OIMS has been updated to comply with the 1996 guidelines set by the International Standards Organization (ISO), which developed standards for environmental management systems (ISO 14001). In verifying ExxonMobil compliance with the standards of ISO 14001, Lloyd's Register Quality Assurance noted in 2001 that

Emergency response drills such as this fire response exercise at a liquefied petroleum gas terminal in Thailand are designed to be as realistic as possible.

"We further believe ExxonMobil to be among the industry leaders in the extent to which environmental management considerations have been integrated into its ongoing business process."

Safety and Health

ExxonMobil leads industry in workplace safety

Despite the safety challenges inherent in the work we do, our safety record — both for employees and contractors — is consistently better than the petroleum industry average and continues to improve.

Such safety performance is not the result of happenstance or luck. It's the result of management and employee commitment and accountability. Throughout ExxonMobil operations, safety standards are established, jobs are analyzed, and potential problems and risks are identified. The focus is on recognizing and eliminating hazards before they cause an accident.

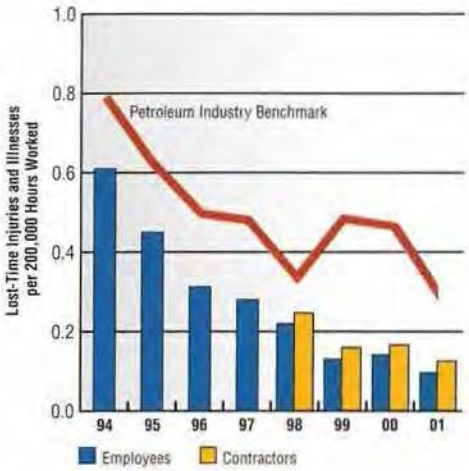
Workplace safety also includes protecting the health of employees and contractors working in potentially dangerous environments. In developing countries where ExxonMobil has operations, we've funded programs to combat such health problems as malaria and AIDS.

Safety improvements continue

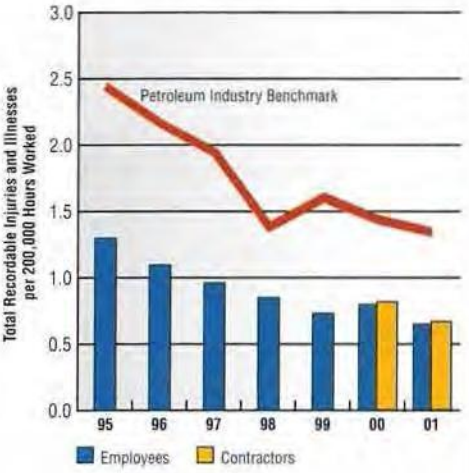
ExxonMobil achieved another year of safety improvement in 2001, continuing our pacesetting performance within the industry.

The principal measure of worker safety is the Lost-Time Incident Rate, which we use throughout our operations. It quantifies worker absences due to job-related injury or illness. Lost time is expressed in relation to 200,000 work hours, which roughly equates to 100 people working 40 hours per week for one year.

Lost-Time Incident Rate



Total Recordable Incident Rate



Our incident rate for 2001 was 0.09. Our contractor rate was 0.13. Both rates are substantially below the average of the top 75 companies working in the petroleum industry.

We constantly seek to manage the work environment to prevent all injuries, and believe that involving every manager, employee and contractor will eventually make it possible to achieve zero job-related injuries.

Our ongoing operations and new facilities construction projects collectively employ about 200,000 workers (employees and contractors). A major disappointment was the three employee and 10 contractor fatalities we had in 2001. Seven of the fatalities involved motor vehicle or related equipment. According to the U.S. National Safety Council, about 70 highway and home fatalities occur annually in a comparable population.

Although fatalities in 2001 were one-third the level of 1995 and lost-time incidents were one-fifth, we will not be satisfied until we have created a work environment free of injury.

Crews recover air-gun floats during a seismic survey in Australia's Bass Strait. ExxonMobil's Geophysical Operations Group has completed seven years and 15 million project hours without an employee or contractor lost-time injury.

How OIMS works

The OIMS process requires continuous evaluation and improvement of management systems and standards. OIMS establishes a common language for discussion and internal sharing of successful systems and practices among different parts of ExxonMobil's business.

The OIMS framework comprises 11 elements, each with clearly defined expectations that every operation must fulfill. Management systems put into place to meet OIMS expectations must show documented evidence of the following five characteristics:

- The scope must be clear and the objectives must fully define the purpose and expected results;
- Well-qualified people are accountable to execute the system;
- Documented procedures are in place to ensure the system functions properly;
- Results are measured and verified that the intent of the system is fulfilled; and
- Performance feedback from verification and measurement drives continuous improvement of the system.

OIMS requires each operating unit to be assessed by experienced employee teams from outside that particular unit approximately every three years. Self assessments are required in the other years.

During 2001, more than 70 such outside teams assessed performance at about one-third of all ExxonMobil operating units. This level of activity occurs annually.

OIMS elements in action

1. Management, leadership, commitment and accountability.
Employees at all levels are held accountable for safety, health and environmental performance.

Example: Throughout our chemical business, employees annually develop personal safety work plans. Members of senior management share their plans broadly within their organizations.

2. Risk assessment and management.
Systematic reviews evaluate risks to help prevent accidents from happening.

Example: A risk assessment in Africa revealed that vehicle fatalities were 30 times higher than in Europe and the U.S. An ExxonMobil driver training program has led to dramatic improvements.

3. Facilities design and construction.
All construction projects from small improvements to major new expansions are evaluated early in their design for safety, health and environmental impact.

Example: A focus on facilities design has improved energy efficiency by 37 percent at our refineries and chemical plants.

4. Information and documentation.
Information that is accurate, complete and accessible is essential to safe and reliable operations.

Example: In Africa, the fuels and lubes business electronically cataloged country and local procedures to allow access to best practices by all parts of the organization.

5. Personnel and training.
Meeting high standards of performance requires that employees are well trained.

Example: Employees were hired well ahead of the start-up of a major new plant in Singapore to allow time for completion of rigorous training and certification.

6. Operations and maintenance.
Operations and maintenance procedures are frequently assessed and modified to improve safety and environmental performance.

Example: At Imperial Oil's production operation in Alberta, Canada, flaring and venting of natural gas have been reduced by 69 percent over the last five years as a result of new procedures.

7. Management of change.
Any change in procedure is tested for safety, health and environmental impact.

Example: After equipment maintenance and replacement at refineries such as the Torrance, California Refinery, engineers review all changes to confirm that all operating procedures and guidelines are still correct before start-up.

8. Third-party services.
Contractors are important to safe operations.

Example: Our 25 geophysical services contractors – working in 20 countries – have worked seven years without a lost-time injury.

9. Incident investigation and analysis.
Any incident, including a "near miss," is investigated.

Example: Operations around the world share incident investigation results in a common database to allow key learnings to be broadly shared.

10. Community awareness and emergency preparedness.
Good preparation can significantly reduce the impact of an accident.

Example: Like other company business units, ExxonMobil's International Marine Transportation (IMT) affiliate routinely conducts emergency response drills. This training paid off in 2001 when we were called upon to help four non-company vessels in distress.

11. Operations integrity assessment and improvement.
A process that measures performance relative to expectations is essential to improved operations integrity.

Example: At ExxonMobil's European region offices in Brussels, Belgium, teams of experts measure OIMS effectiveness and use the findings to plan future improvements in operations.

Milestones

- Our Malaysian upstream affiliate achieved its second consecutive year of zero lost-time injuries. On a combined employee-contractor basis, the affiliate has logged more than 22 million work hours since its last lost-time injury.
- Our Baton Rouge, Louisiana Chemical Plant achieved 7.2 million work hours without a lost-time injury. The adjacent ExxonMobil refinery completed 4.3 million work hours without a lost-time injury.

Environment

Environmental performance continues to improve

At each of our facilities we track oil and chemical spills, air emissions, water discharges and waste disposal. We closely monitor marine vessel spills.

As shown in the charts below, our emissions continue to decline. The trends in spills and environmental regulatory compliance also are favorable.

Addressing climate change risk

We recognize that the risk of climate change and its potential impacts on society and ecosystems may prove to be significant. While research must continue to better understand these risks and possible consequences, we will continue to take tangible actions and work with others to develop effective long-term solutions that minimize the risk of climate change from energy use without unacceptable social and economic consequences.

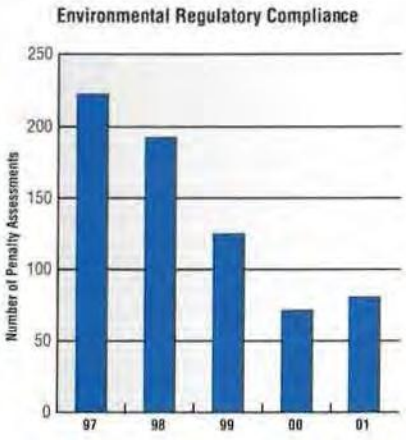
Overall, we believe that steps to address climate change should include:

- Scientific research to improve understanding of climate change and its potential risks;
- Implementing economic steps to reduce greenhouse gas emissions now; and
- Research on innovative, advanced technologies that have potential to dramatically reduce emissions in the future. We are actively engaged in this type of research to meet customer demand for new, affordable and environmentally improved products.

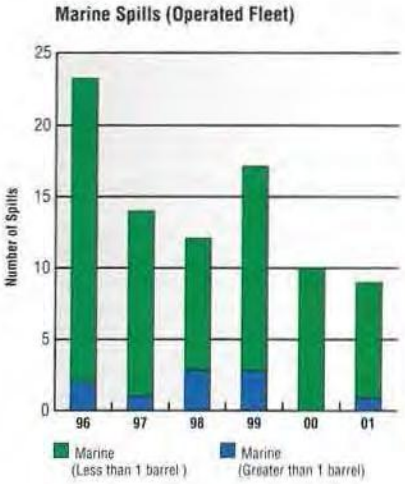
Greenhouse gas emissions

The charts on page 12 show ExxonMobil's global greenhouse gas emissions. We've worked for several years to establish reliable internal procedures to measure and understand such emissions. We've also worked with others in the industry to

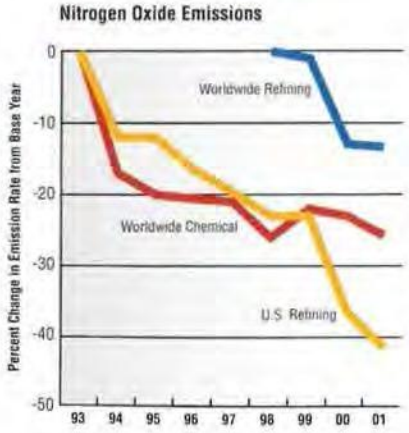
Regulatory Compliance



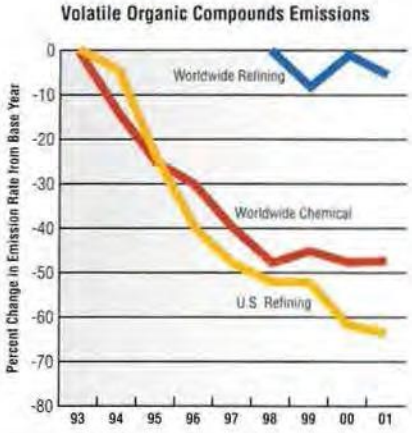
Spills



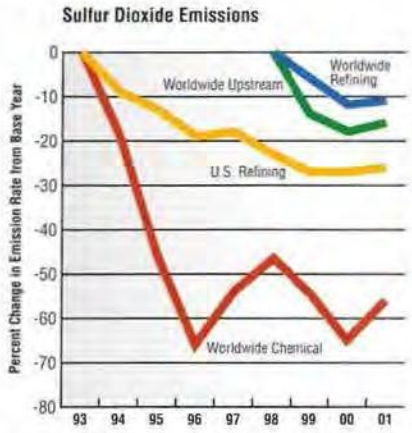
Air Emissions from Operations



Emission Rate Bases *(amount per 100 tonnes of throughput)*
1993: U.S. Refining = 0.034 tonnes NOx
1993: Worldwide Chemical = 0.070 tonnes NOx
1998: Worldwide Refining = 0.026 tonnes NOx



Emission Rate Bases *(amount per 100 tonnes of throughput)*
1993: U.S. Refining = 0.028 tonnes VOC
1993: Worldwide Chemical = 0.130 tonnes VOC
1998: Worldwide Refining = 0.033 tonnes VOC



Emission Rate Bases *(amount per 100 tonnes of throughput)*
1993: U.S. Refining = 0.055 tonnes SO_2
1993: Worldwide Chemical = 0.022 tonnes SO_2
1998: Worldwide Refining = 0.083 tonnes SO_2
1998: Worldwide Upstream = 0.029 tonnes SO_2

Efficiency improvements at ExxonMobil refineries and chemical plants have reduced energy use, thereby reducing emissions of greenhouse gases.

develop common measurement techniques and to understand and benchmark emissions from comparable operations.

We believe it's important for companies to understand the greenhouse gas emissions created from their activities. For that reason, we advocate development of reliable, accountable procedures to measure and report greenhouse gas emissions through a registry. Today ExxonMobil can provide reliable information only for business activities that we operate. However, we are working with governments and industry associations to promote development of procedures for mandatory reporting by all businesses, so that in the future we can report emissions for activities we operate and also those in which we share ownership with others.

Our total emissions exceed those of smaller petroleum companies simply because our operations are bigger. However, when scaled to the volume of oil, gas, chemicals and products that we produce, our emissions are similar to those of our competitors. Despite increases in production volumes and product sales over the last several years, total emissions have

Making things better

We're taking important steps to bolster ExxonMobil safety, health and environmental performance:

- *Our U.S. refineries voluntarily reduced so-called TRI emissions by 23 percent during 2000*, bringing the level of these emissions to just 34 percent of the 1988 baseline.*
- *Many ExxonMobil operations now apply behavior-based safety programs to reduce injuries. These programs include job task observations to help make safe behavior a habit and to address factors that cause unsafe behavior.*
- *The application of our new* Passenger and Service Vehicle Management Guide *helps improve safety among employees and contractors whose responsibilities include frequent driving.*
- *Together with the International Petroleum Industry Environmental Conservation Association, ExxonMobil leads the initiative to eliminate lead in gasoline in sub-Saharan Africa.*
- *We're applying new technology to reduce the flaring of natural gas. For example, at facilities in Scotland that support North Sea offshore production, we installed a flare gas recovery compressor and waste gas boiler that together reduce flaring by 90 percent.*

**Most recent data available at time of publication.*

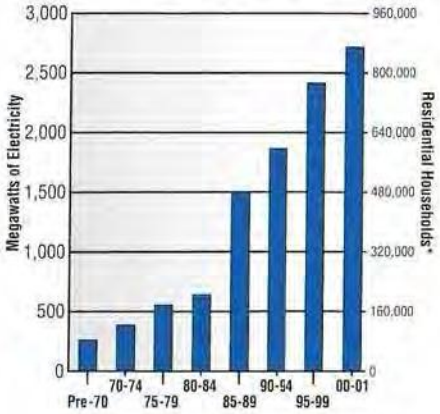
essentially remained flat. Lower energy consumption in refineries and chemical plants helped offset a rise in carbon dioxide emissions in 2001 due to increases in development drilling and production flaring.

We work with automobile manufacturers and others to make the use of our products more efficient. This is critical because greenhouse gas emissions from the use of oil in the global economy occur predominantly (87 percent) from end-users, and less (13 percent) from operations of the oil industry. We have ongoing research programs with General Motors, Toyota and others to develop new technologies to reduce future greenhouse gas emissions.

Our efforts to measure and understand operational greenhouse gas emissions and to develop and utilize advanced technologies reflect a two-decade effort to establish a sound scientific, technical and economic basis to address climate change concerns.

ExxonMobil scientists Dr. Brian Flannery and Dr. Haroon Kheshgi have authored more than 40 published papers on scientific, technical, economic and policy aspects of climate change. Both served as lead authors in the recently completed United Nations' Third Assessment Report of The Intergovernmental Panel on Climate Change.

ExxonMobil Cogeneration Capacity (MW)



*Number of typical U.S. residential households that could be served by the additional energy captured through the improved efficiency resulting from our cogeneration assets.

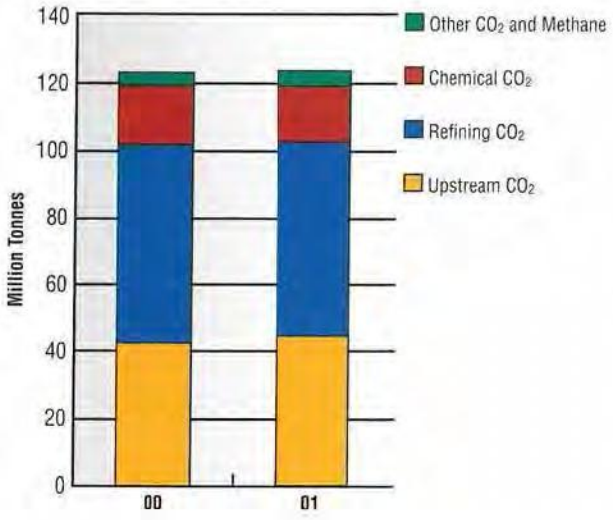
Energy efficiency improved 35 percent

Since the energy crisis of the early 1970s, we have focused on becoming more energy efficient in our operations. In fact, between 1973 and 1998 we have improved energy efficiency in our refineries and chemical plants by more than 35 percent. The energy saved over that 25-year period is equal to all the gasoline consumed by European drivers for two years. Moreover, this energy savings has the effect of avoiding carbon dioxide emissions equal to the total emissions of the United Kingdom in 1998.

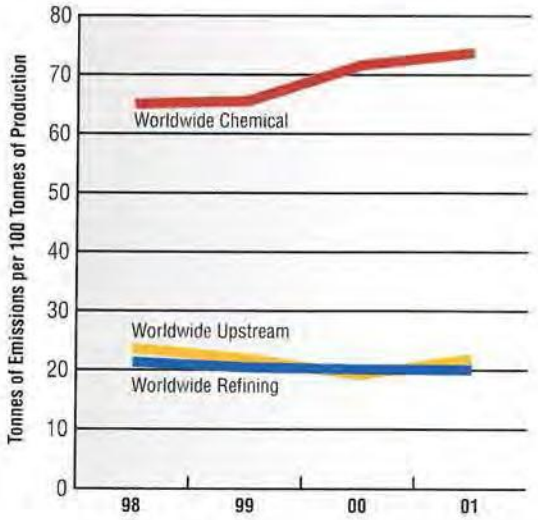
Two ongoing ExxonMobil initiatives contribute significantly to reducing greenhouse gas emissions from our operations.

First, we use cogeneration facilities that can supply 2,700 megawatts of electricity, accounting for over 40 percent of our total power-generating capacity. This

Greenhouse Gas Emissions



Greenhouse Gas Emissions



A male Attwater's prairie chicken inflates its orange neck sac as part of the bird's mating ritual. ExxonMobil donated habitat and funds to establish a sanctuary that shelters this bird that is threatened with extinction.

cogeneration reduces carbon dioxide emissions by almost seven million tonnes a year from what they would otherwise have been.

Second, we've extended our efforts in energy efficiency by applying our Global Energy Management System (G-EMS), an approach that reduces energy use, emissions and operating costs at ExxonMobil refineries and chemical plants. Opportunities have been identified to further improve energy efficiency by 15 percent, lowering emissions of carbon dioxide, sulfur dioxide, nitrogen oxide and other gases.

Energy efficiency savings over the next several years will help further reduce air emissions and greenhouse gases per unit of production.

Nurturing biodiversity

We all have a responsibility to be concerned about sustaining the world's biological diversity (biodiversity). Working with worldwide conservation associations, we seek to preserve habitats that will allow species to flourish. Some of our efforts have included donation of critical habitat to support species such as the Attwater's prairie chicken, to ensure turtle preservation and to actively participate in reforestation efforts by planting more than two million trees in the last five years.

ExxonMobil also has focused on our Save the Tiger initiative. Because of our long history with these magnificent animals as a corporate symbol, we feel a special obligation to ensure their survival.

Sustainability: managing for today and tomorrow

Sustainability is a critical consideration in how we operate the company.

We recognize the importance of sustainable development, a process that seeks to protect the aspirations of future generations.

As a major energy supplier, we seek to maximize the contributions we make to economic growth, environmental protection and social well-being over the long run.

Through the use of advanced technology, we have continued to add to the known reserves of oil and gas at a greater rate than they have been depleted, greatly extending the time period when affordable petroleum resources can meet the world's demand for energy. We believe this approach to be consistent with sustainability.

Our research and technology have enabled energy producers and consumers to improve efficiency and to reduce carbon dioxide and other emissions. Our operations continually seek ways to reduce the footprint that we leave.

We are working on ways to bring our science and technology expertise to energy-related solutions that are technically and economically viable.

We also consider the impacts of our operations on habitats and look for ways to meet our business needs without damaging habitats. We will continually look for opportunities to demonstrate that oil and gas development and biodiversity can be mutually sustained.

Science and technology research delivers improvements

ExxonMobil conducts extensive research relating to safety, health and environmental issues. We are working to improve our manufacturing processes, reduce wastes, minimize our footprint, improve operating standards and ensure the safety of our products.

Nearly 500 employees are engaged in safety, health and environment-related science and technology research.

Much of our environmental research focuses on new ways to remove nitrogen compounds from air and water emissions.

Our extensive testing of products provides information on the properties and potential risks to employees, consumers and the environment. Much of the work is done at laboratories of ExxonMobil Biomedical Sciences, Inc. (EMBSI) in New Jersey.

EMBSI provides services in toxicology, occupational and public health, and product stewardship to affiliates worldwide.

Its 160-member staff of industrial hygienists and medical professionals assists employees and contractors through the occupational health network. This network assures that health and safety standards are applied worldwide.

We developed systems to reduce safety incidents by including human factors in engineering projects. We are encouraged by positive safety results in recent major construction projects.

Our highly automated plants use sophisticated alarms to alert personnel of operational upsets. We have worked with Honeywell for many years to make these systems highly reliable and easy to monitor. We've also co-developed with Akzo Nobel a new refining technology (*SCANfining*) that selectively removes sulfur during the gasoline manufacturing process.

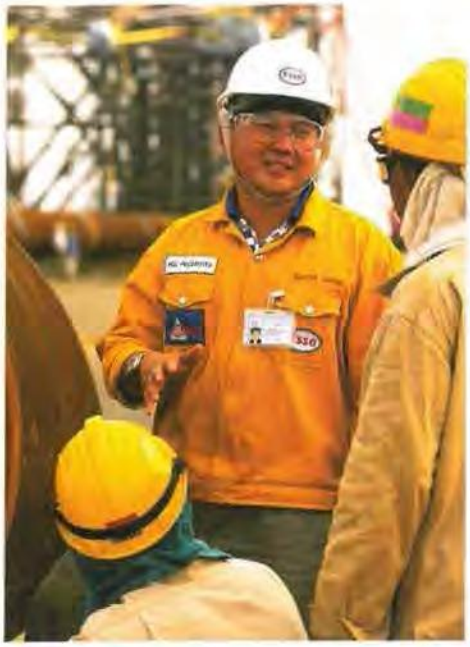
Barbara Kelly prepares to test the biodegradability of a synthetic fluid. The ping-pong balls serve as a barrier to minimize water evaporation.

Safety performance is important in its own right. But it also reflects a discipline that carries over into everything we do, including protecting the environment and satisfying customer needs for energy and petrochemicals.

Recognition for outstanding performance

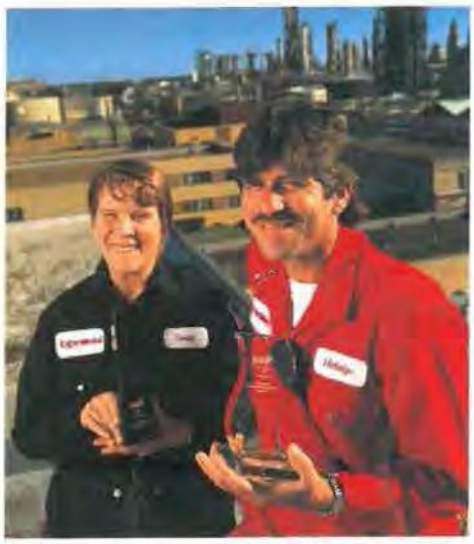
- The U.S. Department of the Interior awarded its 2001 National Safety Award for Excellence and its Corporate Citizen Award to ExxonMobil. The SAFE Award cited the company's safety and operations record at offshore facilities in the Gulf of Mexico and offshore California. Minerals Management Service Director R.M. Burton has called recipients "the best of the best."
- ExxonMobil's international marine shipping subsidiary — IMT — won the British Safety Council's Sword of Honor for its world-class safety system and integration of best practices throughout the organization. The group also won the Royal Society for the Prevention of Accidents highest award. The shipping organization has logged more than two million work hours without a lost-time injury.

ExxonMobil's SeaRiver Maritime has been honored for two consecutive years by the State of Washington for exceptional compliance with the state's voluntary standards for safety and environmental protection. Shown at the award presentation are (from left) Paul Revere, president of SeaRiver Maritime; Tom Fitzsimmons, Director of Washington's Department of Ecology; and U.S. Coast Guard Rear Admiral Erroll Brown.



A comprehensive commitment to safe operations by employees like Nazri Ason helped ExxonMobil's Malaysian affiliate achieve two consecutive years of zero lost-time injuries.

- A loss prevention system at the Campana Refinery in Argentina earned *Esso* the Argentinean Institute of Petroleum and Gas Safety Award.
- Two ExxonMobil employees, Linda Williamson and Mark Hidalgo, received the Outreach Award from the National Voluntary Protection Program Participants Association in 2000 and 2001, respectively. The annual award honors a single individual for his or her efforts to improve worker safety and spread the cooperative approach of the U.S. Occupational Safety and Health Administration program.
- ExxonMobil Canada received the 2001 VCR Upstream Oil and Gas Leadership Award for reducing emissions and improving energy efficiency. Since 1994 the company cut its energy consumption by an amount that would heat more than 43,000 homes for one year, and reduced CO_2 emissions by approximately 580,000 tonnes. During this period production increased 30 percent. VCR is a partnership of government agencies, industrial companies and other organizations.
- The Chamber of Shipping of America awarded its Devlin Award to 21 ExxonMobil marine transportation vessels. The Devlin Award recognizes vessels that have operated two years or longer without a lost-time injury.
- The U.S. Coast Guard presented its prestigious William M. Benkert Gold Award of Excellence for marine environmental protection to ExxonMobil's U.S. marine transportation affiliate, SeaRiver Maritime. The company also secured the Washington State Department of Ecology Exceptional Compliance Award for high standards of operations and oil spill prevention. The company is the first to be recognized by the State of Washington for exceptional compliance.
- Our chemical joint venture with Saudi Basic Industries Corporation in Al-Jubail, Saudi Arabia was recognized for safety excellence by the Construction Users Roundtable.
- The Thailand Ministry of Science, Technology & Environment presented its Outstanding Energy Conservation Award to the *Esso* Sriracha Refinery.



Linda Williamson, an employee at the Hull, Texas LPG storage facility, and Mark Hidalgo, an employee at the Beaumont, Texas Refinery show the awards they received for their efforts in promoting safety in the workplace.

Exhibit H

ExxonMobil

Taking on the world's toughest energy challenges.™

2006 corporate citizenship report

APP. 100

table of contents

about this report

The ExxonMobil *2006 Corporate Citizenship Report* describes our efforts in a range of areas relating to the economic, environmental, and social performance of owned and operated operations. We produced this report in accordance with the reporting guidelines and indicators of the International Petroleum Industry Environmental Conservation Association (IPIECA) and the American Petroleum Institute (API) *Oil and Gas Industry Guidance on Voluntary Sustainability Reporting* (April 2005). The majority of these indicators are also consistent with the indicators used by the Global Reporting Initiative (GRI) in the *G3 Sustainability Reporting Guidelines* Version 3.0 (G3).

In preparing this report, we benefited from comments on the *2005 Corporate Citizenship Report*. We solicited feedback through a variety of mechanisms, including the corporate reporting Web site *(exxonmobil.com/citizenship)*, online surveys, business-reply cards, and interviews with opinion leaders from nongovernmental organizations (NGOs), academia, and financial institutions. Business for Social Responsibility (BSR), an advisory organization on corporate social responsibility of which we are a member, also provided a detailed review of our 2005 report.

This report addresses our corporate citizenship accomplishments, the challenges we face, and our future plans to meet these challenges. Additional information about our operation-wide management systems and processes can be found on our Web site *(exxonmobil.com/managementsystems)*.

We value your feedback on this report and our performance in addressing economic, environmental, and social issues.

For additional information and to provide comments, please contact:

Elizabeth Beauvais
Advisor, Corporate Citizenship
ExxonMobil
3225 Gallows Road
Fairfax, VA 22037
E-mail: *elizabeth.beauvais@exxonmobil.com*

Note: This report covers ExxonMobil and all of its corporate subsidiaries under the brands ExxonMobil, Exxon, Mobil, and Esso. Most environmental data are reported in metric units. Financial information is reported in U.S. dollars.

LRQA attestation summary statement. Lloyd's Register Quality Assurance, Inc. (LRQA) believes the ExxonMobil reporting system is effective in delivering safety, health, and environmental indicators, which are useful for assessing corporate performance and for reporting information consistent with the IPIECA/API *Guidance*. For the full attestation statement, see the inside back cover.

environmental performance

focus areas:

- Energy efficiency
- Gas flaring
- Greenhouse gas emissions
- Spill prevention
- Operating in sensitive areas

Case study: Sound and the marine environment

ExxonMobil is committed to operating in an environmentally responsible manner everywhere we do business. Our efforts are guided by in-depth scientific understanding of the environmental impact of our operations, as well as by the social and economic needs of the communities in which we operate. Our operational improvement targets and plans are based on driving incidents with real environmental impact to zero and delivering superior environmental performance. We are committed to our environmental initiative—*Protect Tomorrow. Today.*

environmental management

We manage our safety, security, health, and environmental risks worldwide using our *Operations Integrity Management System* (OIMS). This system gives us a rigorous and systematic framework by which to communicate expectations, measure progress, and ensure results. It meets the requirements of the International Organization for Standardization's standard for environmental management systems (ISO 14001).

Our business operations continue to drive improvements in their environmental performance by incorporating *Environmental Business Planning* (EBP) into the annual business planning cycle. The businesses use EBP to identify key environmental drivers, set targets in key focus areas, and identify projects and actions to achieve those targets. The EBP approach has been an effective tool to integrate environmental improvements into the company's overall business plan. We regularly engage with local communities to provide input to our EBP process. For additional information about EBP, please go to our Web site (*exxonmobil.com/ebp*).

For new projects and developments, we conduct environmental and social impact assessments (ESIAs) that review factors such as community concerns, sensitive environmental habitats—for example, sound and the marine environment (see case study, page 24)—and future regulatory developments. The assessment results are integrated into project decision making.

For example, ExxonMobil Development Company, which manages ExxonMobil's major new upstream projects worldwide, is developing *Environmental Standards* as guidelines to help managers plan and integrate best practices for environmental protection into new projects and drilling operations. In 2006, guidelines that address nitrogen oxides (NOx) emissions, flaring and venting, and managing offshore drill cuttings were developed. Additional guidelines for managing waste, water, and land use will be developed in 2007.

Emergency Preparedness. Risks are inherent in the energy and petrochemical business, including risks associated with safety, security, health, and the environment. ExxonMobil recognizes these risks and takes a systematic approach to reducing them.

environmental performance
a closer look

Climate change: policy perspective

A global approach to the risk posed by rising greenhouse gas emissions is needed that recognizes energy's importance to the world's economies. Developing countries will weigh emissions reductions against energy-intensive economic development, which lowers poverty and improves public health.

Policymakers can work today to reduce the risk of climate change due to rising greenhouse gas emissions by seeking to:

• Promote energy efficiency both in energy supply and end use;

• Ensure wider deployment of existing emissions-reducing technology;

• Support research and development of new technologies that can dramatically lower emissions while ensuring energy availability; and,

• Maintain support for climate research, to inform policy and the pace of response.

The choice of policy tools will be important. Each should be assessed for effectiveness, scale, and cost, as well as their implications for economic growth and quality of life. In our view, effective policies will be those that:

• Promote global participation;

• Ensure any cost of carbon is uniform across the economy and is predictable; uniformity ensures economic efficiency in getting the biggest reduction in emissions at the lowest cost, and predictability facilitates investment in technologies needed to reduce emissions;

• Maximize the use of markets, to aid rapid adoption of successful initiatives;

• Maximize transparency;

• Minimize complexity and administrative costs; and,

• Provide flexibility to adjust to ongoing understanding of the economic impact and evolving climate science.

Public Policy Research Contributions. ExxonMobil supports the development of public policy to address the risk posed by rising greenhouse gas emissions.

ExxonMobil contributes to a broad array of organizations that research significant domestic and foreign policy issues and promote discussion on issues of direct relevance to the company. Our support is transparent, and our U.S. contributions can be found on our Web site (*exxonmobil.com/contributions*). These groups range from the Brookings Institution and the American Enterprise Institute to the Council on Foreign Relations and the Center for Strategic and International Studies.

As most of these organizations are independent of their corporate sponsors and are tax-exempt, our financial support does not connote any substantive control over or responsibility for the policy recommendations or analyses they produce.

We place great emphasis on planning to ensure a quick and effective response capability to operational incidents. Operating businesses and major sites have well-trained teams who are routinely tested in a range of scenarios including product spills, fires, explosions, natural disasters, and security incidents. In addition to hundreds of local drills in 2006, we conducted six major regional emergency response drills, which included a major drill conducted together with the U.S. Coast Guard in Alaska. For more information on our emergency prevention and response systems, please go to our Web site (*exxonmobil.com/emergencyresponse*).

global climate change and greenhouse gas emissions

Climate Change. Addressing the risk posed by rising greenhouse gas (GHG) emissions while providing more energy to support economic growth and to improve global living standards is an important issue facing our world today.

Climate remains an extraordinarily complex area of scientific study. Because the risk to society and ecosystems from rising greenhouse gas emissions could prove to be significant, strategies that address the risk need to be developed and implemented.

environmental performance
a closer look

Reporting greenhouse gas emissions

ExxonMobil is committed to reporting greenhouse gas emissions from our operations, and we have reported our emissions since 1998. Our calculations are based on the techniques and emissions factors provided in the internationally endorsed *Compendium of Greenhouse Gas Emission Estimation Methodologies for the Oil and Gas Industry* (American Petroleum Institute) and the *Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions* (International Petroleum Industry Environmental Conservation Association), which we helped to develop.

Calculating global GHG emissions is complex, not least because:

• Emissions from petroleum production and refining operations can vary widely due to differing geological circumstances, natural resource characteristics such as sulfur levels in crude oil, and the range of end-product specifications required in different regions, countries, or even local markets.

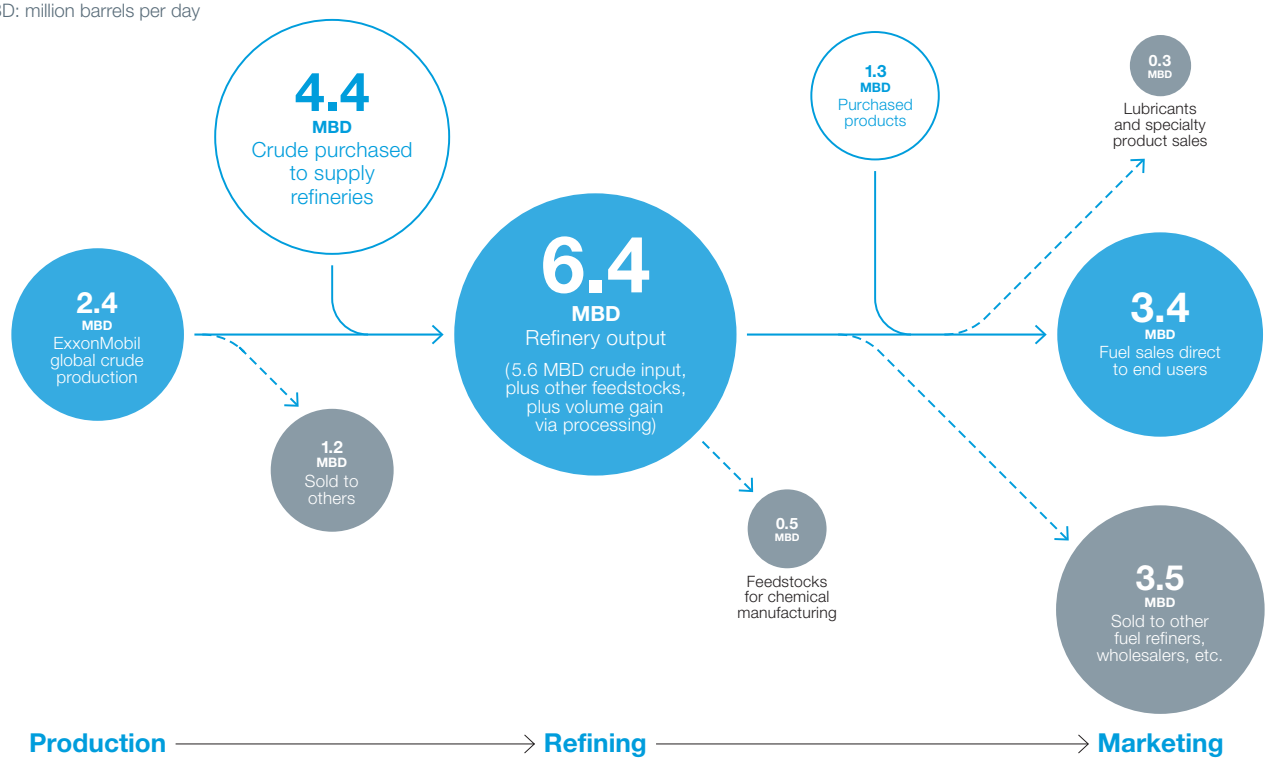
• On average, about 87 percent of petroleum-related GHG emissions are produced by end users, versus 13 percent by petroleum industry production and manufacturing operations. The emissions produced by burning specific fuels are well-known—for example, standard gasoline and diesel fuel emit 20.3 and 22.5 pounds of CO_2 per gallon, respectively. But actual end-user emissions will depend on factors such as vehicle choice, travel habits, and energy-efficiency efforts in businesses, homes, offices, and vehicles.

• The supply chain for crude oil from production to product marketing involves numerous changes of ownership such that approximately 20 percent of the crude oil we refined in 2006 came from our own production, and about half of the fuel products that we produced were sold to other companies who in turn sell them to others. This petroleum supply chain is illustrated below.

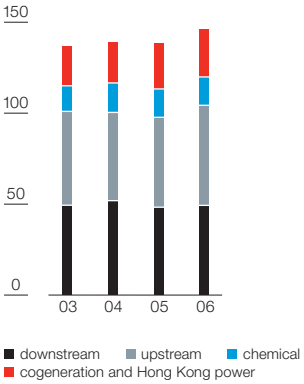
It is important that producers, refiners, distributors, and end users in the chain take responsibility for managing and accounting for the emissions they generate. Those who operate facilities or use fuels are in the best position to identify opportunities to control emissions.

ExxonMobil 2006 worldwide petroleum supply overview

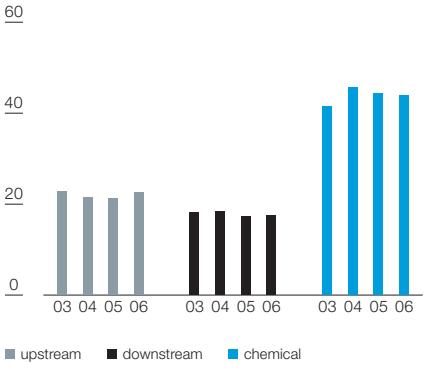
MBD: million barrels per day



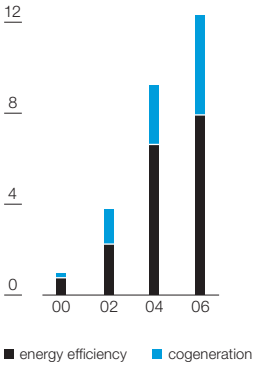
greenhouse gas emissions (absolute)
direct equity, CO_2-equivalent emissions (million metric tons)



greenhouse gas emissions (normalized)
direct equity, CO_2-equivalent emissions (excluding cogeneration) (metric tons per 100 metric tons of throughput)



avoided GHG emissions from ExxonMobil actions since 1999
CO_2-equivalent emissions (million metric tons)



Meaningful approaches must be affordable to consumers, applicable in the developed and developing world, and allow for continued economic growth and improvements in living standards. Technological advances will be critical.

Greenhouse Gas Emissions. At ExxonMobil, we take the risk posed by rising GHG emissions seriously and are taking action. Our scientists and engineers are working to reduce GHG emissions today, while supporting the development of new technologies that could significantly reduce emissions in the long term. Examples include:

• Improving energy efficiency at our facilities, resulting in CO_2 emissions reduction of about 8 million metric tons in 2006 from steps taken since 1999, equivalent to taking about 1.5 million cars off the road in the United States;

• Investing in cogeneration capacity, reducing global CO_2 emissions by over 10.5 million metric tons in 2006, equivalent to taking about 2 million cars off the road in the United States;

• Continuing to support the *Global Climate and Energy Project* (GCEP) at Stanford University—a pioneering research effort to identify technologies that can meet energy demand with dramatically lower greenhouse gas emissions. Study areas include solar energy, hydrogen, biofuels, and advanced transportation;

• Working with auto and engine manufacturers to improve fuel economy by as much as 30 percent, reducing emissions of CO_2 as well as air pollutants;

• Partnering with the European Commission and other organizations to assess the viability of geological carbon storage;

• Exploring new ways to produce hydrogen for potential long-term applications ranging from vehicles to retail stations and large production facilities; and,

• Engaging with the U.S. Environmental Protection Agency in the SmartWay® Transport Partnership to improve fuel economy and reduce emissions associated with the transportation of our products.

In 2006, our greenhouse gas emissions were 146 million metric tons, a 5.4-percent increase over 2005 due to increases in oil production in Africa and the ramp-up in energy-intensive liquefied natural gas (LNG) production from new facilities in the Middle East.

Research and Development. We have been working for more than 25 years with scientific and business communities, taking part in research to create economically competitive and affordable future options for reducing global emissions associated with growing demand for energy. Because the combustion of fuels by consumers generates the majority of GHG emissions, we also work with auto and engine manufacturers, government laboratories, and academia to develop more efficient technologies for the use of petroleum products, especially in transportation. As one example, we are working on separate initiatives with Toyota and Caterpillar to develop more efficient, cleaner-burning internal combustion engines and engine systems that could improve the fuel economy of future vehicles by up to 30 percent versus current gasoline engines.

The *Global Climate and Energy Project*, now entering its fifth year, continues to expand and diversify its portfolio of research activities. Research in the past year included work in biomass energy, advanced coal utilization, solar energy, fuel cells, hydrogen, carbon capture and storage, and advanced combustion for possible transportation and other applications. In 2007, GCEP will begin research on advanced energy storage that offers the potential to enhance the commercial

Through GCEP, research is being conducted to discover affordable options for reducing global greenhouse gas emissions associated with energy use. For example, graduate student-researcher Shannon Miller investigates more efficient combustion engines in the Advanced Energy Systems Lab at Stanford University.

viability of intermittent energy sources such as wind and solar. Increasingly, GCEP funding has been awarded to scientists outside Stanford at other research institutions in the United States, Australia, the Netherlands, Switzerland, and Japan. Specific research programs launched in 2006 include the investigation of the following:

- Genetically engineering an organism that can convert solar energy into chemical energy stored as hydrogen;
- Developing far more efficient engines based on advanced combustion concepts;
- Storing carbon dioxide underground in secure formations for thousands of years;
- Developing inexpensive solar cells from organic materials; and,
- Preparing specific diesel fuels from biological feedstocks.

improving energy efficiency

In 2006, we consumed approximately 1475 trillion British thermal units (BTUs) of energy running our operations. Since the launch of our *Global Energy Management System* (GEMS) in 2000, we have identified opportunities to improve energy efficiency at our refineries and chemical plants by 15 to 20 percent. We have implemented more than half of these opportunities, with associated cost savings of approximately $750 million per year in our Refining and Chemical businesses. As a result of these actions, we have avoided the emission of about 8 million tons of associated GHG in 2006, which is roughly equivalent to removing 1.5 million cars from U.S. roads.

We continue to implement a range of operational and facility improvements, conduct targeted research and development of energy-saving new technologies, and apply technological innovations in our projects. As part of the American Petroleum Institute's *Voluntary Climate Challenge Program*, ExxonMobil is committed to improve energy efficiency by 10 percent between 2002 and 2012 across our U.S. refining operations. We are on track to meet this commitment not only in the United States but also globally.

As an example, our Trecate, Italy, refinery improved energy efficiency by over 15 percent since 2000. About half of the improvements to date are the result of low-cost optimization of day-to-day operations. The remainder is attributable to the installation of new energy-efficient facilities. A GEMS assessment in 2006 identified additional energy-saving opportunities equivalent to $10 million to $15 million per year.

Cogeneration. Cogeneration is the simultaneous production of electricity and thermal heat/steam. By capturing the waste heat that otherwise escapes into the atmosphere or is lost in condensing steam back to water, we are able to use it directly within our manufacturing and production facilities. Cogeneration has been a significant factor in reducing energy consumption and improving energy efficiency at ExxonMobil facilities around the world. With the latest turbine technology, cogeneration can be twice as efficient as traditional methods of producing steam and power separately.

As an industry leader in cogeneration applications, we invested more than $1 billion into cogeneration projects during 2004 to 2005 alone. We now have interest in about 100 such facilities in more than 30 locations worldwide with a combined capacity of 4300 MW of power. ExxonMobil's current cogeneration capacity reduces global CO_2 emissions by over 10.5 million metric tons annually. The amount of CO_2 reduced is equivalent to taking about 2 million cars off the road in the United States.

Exhibit I

From: Balagia, Jack
Sent: Wednesday, November 04, 2015 9:53 PM
To: McGowan, Marie C; Conlon, Patrick J
Cc: Ebner, Randall M; Johnson, Casey; Johnson, Robert W - Law; Byrne, Richard E; Bell, Annora A; Klafehn, Lynn M; Lee, Joann
Subject: Fwd: Investigatory Subpoena from New York State Attorney General's Office

Sent from my iPhone

Begin forwarded message:

> **From:** "Lemuel Srolovic" <Lemuel.Srolovic@ag.ny.gov>
> **To:** "Balagia, Jack" <jack.balagia@exxonmobil.com>
> **Subject: Investigatory Subpoena from New York State Attorney General's Office**
>
> Mr. Balagia – attached is an investigatory subpoena for documents from the New York State Attorney General's office. The subpoena is returnable on December 4, 2015. If you or a colleague would like to discuss the subpoena, my contact information is below. Very truly yours, Lem Srolovic
>
> Lemuel M. Srolovic
> Bureau Chief
> Environmental Protection Bureau
> New York State Attorney General
> 212-416-8448 (o)
> 917-621-6174 (m)
> lemuel.srolovic@ag.ny.gov

Exhibit J

Exxon Mobil on Hot Seat for Global Warming Denial

New York Attorney General Eric Schneiderman subpoenaed the oil and gas giant Wednesday evening.

By Alan Neuhauser | Staff Writer Nov. 5, 2015, at 4:35 p.m.

Exxon Mobil Corp., once on the leading edge of climate science, has been accused of hiding what it knew about the existence of human-induced global warming. (DAVID MCNEW/GETTY IMAGES)

The New York attorney general has launched an investigation into Exxon Mobil to determine whether the country's largest oil and gas company lied to investors about how global warming could hurt its balance sheets and also hid the risks posed by climate change from the public.

Attorney General Eric Schneiderman, a Democrat, issued a subpoena to Exxon Mobil on Wednesday night seeking fnancial records, internal communications, climate studies, advertising materials and other documents, an offcial in the attorney general's offce familiar with the investigation confrmed Thursday.

The probe spans two areas of the law: consumer protection – whether Exxon Mobil engaged in deceptive or misleading business practices – and New York's fraud and securities law, known as the Martin Act, according to the offcial, who was not authorized to speak on the record.

Latest Videos

Sheriff Joe

Peabody Energy, the nation's largest coal producer, has also been under investigation for the past two years.

The dual investigations were frst reported by The New York Times .

[READ: More VW, Audi, Porsche Vehicles Implicated in Emissions Scandal]

Schneiderman's subpoena comes just weeks after a probe by InsideClimate News revealed that despite Exxon funneling millions of dollars in past decades to advocacy groups to obscure how burning oil, gas and coal warms the environment, it had once been a global leader in climate change research.

As early as 1977 – roughly a decade before researcher James Hansen testifed before Congress to alert the world to the dangers of climate change – a senior company scientist warned executives that "there is general scientifc agreement that the most likely manner in which mankind is infuencing the global climate is through carbon dioxide release from the burning of fossil fuels," InsideClimate News reported.

Schneiderman's offce began scrutinizing Exxon Mobil as early as last year, the offce offcial tells U.S. News. Exxon Mobil has vigorously denied that it suppressed information.

"Nothing could be further from the truth," CEO Rex Tillerson said Wednesday.

[ALSO: Republican Candidates Embrace Obama's Energy Platform]

Nonetheless, in the weeks since the debut of the InsideClimate package – which was followed shortly by another expose by the Los Angeles Times – the hashtag #ExxonKnew has been a trending topic on Twitter.

Schneiderman's subpoena could mark the opening salvo in a far broader effort by states to examine what fossil fuel companies knew about man-made climate change, when they knew it and what they may have done to hide its dangers from the public to protect company profts – a campaign that may resemble others that elicited billions of settlement dollars from tobacco companies. (Many of the same marketing fgures who worked for the tobacco companies reportedly have more recently found work with climate-denial groups.)

More videos:

Popular Articles

Trump Hearkens to Reconstruction-Era White Supremacists

Move Beyond Drugs to

[DATA MINE: 61 Percent of Public Supports Clean Power Plan in States Suing to Stop It]

Private lawsuits aimed at holding companies liable for damage they've caused to the world's climate have met with little success.

"New York's attorney general has shown great courage in holding to account arguably the richest and most powerful company on Earth," Bill McKibben, co-founder of the environmental group 350.org, said in a statement. "We hope that other state attorney[s] general and the federal Department of Justice, and the Securities [and] Exchange Commission, will show similar fortitude."

Schneiderman reportedly plans to seek re-election in 2018.

Updated on Nov. 5, 2015: This story has been updated to include additional information from the New York State Attorney General's offce.

Tags: Exxon Mobil, energy policy and climate change, global warming, oil, greenhouse gases, natural gas, environment, energy, New York, courts, Peabody Energy Corp.

Alan Neuhauser | STAFF WRITER

Alan Neuhauser covers law enforcement and criminal justice for U.S. News & World Report. He also contributes to STEM and Healthcare of Tomorrow, and previously reported on energy and the environment. You can follow him on Twitter or reach him at aneuhauser@usnews.com.

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Russia Denies Interfering in U.S. Election

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Detonate

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Ancestry

How to Tell If You Have Schizophrenia

WebMD

More From U.S. News

Exhibit K

PBS NEWSHOUR

Has Exxon Mobil misled the public about its climate change research?

November 10, 2015 at 6:45 PM EDT

Oil giant Exxon Mobil was recently subpoenaed by New York's attorney general in an investigation of whether the company has intentionally downplayed the risks of climate change. Judy Woodruff hears from Eric Schneiderman, attorney general of New York, and Kenneth Cohen, vice president of Public & Government Affairs for the Exxon Mobil Corporation.

JUDY WOODRUFF: First, a new tack in the battle over climate change: going after energy companies for alleged financial fraud.

New York State Attorney General Eric Schneiderman recently subpoenaed oil giant ExxonMobil, apparently seeking documents that might show the company had downplayed the risks to profits and therefore to investors of stronger regulations on burning fossil fuels. Exxon's history has been the subject of recent reporting by Inside Climate News, The Los Angeles Times and others.

The reporting has alleged the company misled the public about what its own scientists found about the risks of climate change and greenhouse gases.

Here is a clip of a video produced by PBS' Frontline in collaboration with Inside Climate News, a not-for-profit journalism organization that covers energy and the environment.

MAN: Proponents of the global warming theory say that higher levels of greenhouse gases are causing world temperatures to rise and that burning fossil fuels is the reason.

The scientific evidence remains inconclusive as to whether human activities affect the global climate.

WOMAN: We found a trail of documents that that go back to 1977.

Exxon knew carbon dioxide was increasing in the atmosphere, that combustion of fossil fuels was driving it, and that this posed a threat to Exxon. At that time, Exxon understood very quickly that governments would probably take action to reduce fossil fuel consumption. They're smart people, great scientists, and they saw the writing on the wall.

JUDY WOODRUFF: That's a Frontline excerpt.

I spoke earlier this evening with New York State Attorney General Eric Schneiderman.

Welcome, Attorney General Eric Schneiderman.

Let me just begin by asking in — what is it that ExxonMobil has done, in your view, that caused you to launch this investigation?

ERIC SCHNEIDERMAN, Attorney General, New York: We have been looking at the energy sector generally for a number of years, and have — had several investigations that relate to the phenomenon of global warming, climate change, and the human contribution to it.

So we have subpoenaed, issued a broad subpoena to Exxon because of public statements they have made and how they have really shifted their point of view on this in terms of their public presentation and public reporting over the last few decades.

In the 1980s, they were putting out some very good studies about climate change. They were compared to Bell Labs as being at the leadership of doing good scientific work. And then they changed tactics for some reason, and their numerous statements over the last 20 years or so that question climate change, whether it's happening, that claim that there is no competent model for climate change.

So we're very interested in seeing what science Exxon has been using for its own purposes, because they're tremendously active in offshore oil drilling in the Arctic, for example, where global warming is happening at a much more rapid rate than in more temperate zones. Were

they using the best science and the most competent models for their own purposes, but then telling the public, the regulators and shareholders that no competent models existed?

Things like that. We're interested in what they were using internally and what they were telling the world.

JUDY WOODRUFF: And what law would be violated by doing this?

ERIC SCHNEIDERMAN: Well, in New York, we have laws against defrauding the public, defrauding consumers, defrauding shareholders.

We're at the beginning of the investigation. We have to see what documents are in there, but certainly all of the claims would lie in some form of fraud.

JUDY WOODRUFF: Well, I'm sure you're not surprised to know Exxon is categorically denying this. The CEO, Rex Tillerson, said this week nothing could be further from the truth.

In the company's written statement, they start out by saying for many years, they have included all the information they have about the risks of climate change in their public filings, in their reports to shareholders.

ERIC SCHNEIDERMAN: We know that they have been issuing public statements that are at odds with that, and that they have been funding organizations that are even more aggressive climate change deniers.

And they have made numerous statements, both Exxon officials and in Exxon reports, but also through these organizations they fund, like the American Enterprise Institute, ALEC, the American Legislative Exchange Council, through their activities with the American Petroleum Institute, so directly and through other organizations, Exxon has said a lot of things that conflict with the statement that they have always been forthcoming about the realities of climate change.

JUDY WOODRUFF: Well, let me read you, Attorney General Schneiderman, something else that Exxon has been saying where they reacted to some of the reporting that was done on this which is similar to what you're describing.

They say these are allegations based on what they call deliberately cherry-picked statements attributed to various ExxonMobil employees to wrongly suggest that conclusions were reached decades ago by researchers. He said they were statements taken completely out of context and ignored other available statements at the same time.

ERIC SCHNEIDERMAN: Well, then they should welcome this investigation, because, unlike journalists, my staff is going to get to read all of the documents in context, and they will have an opportunity to explain the context of the statements and whether there are contradictions or not.

So, we're at the very beginning stages. We don't want to prejudge what we're going to find, but the public record is troubling enough that we brought — that we decided we had to bring this investigation.

Another area that — where they have been active and we're concerned about is overestimating the costs of switching to renewable energy. They have issued reports, one as recently as last year in response to shareholder requests and public requests, estimating that switching over to renewables by the end of this century would raise energy costs, to the point that they would cost — they would be 44 percent of the median income of an American family.

We want to see how they arrived at that conclusion, which we believe to be vastly overstated.

JUDY WOODRUFF: How do you draw a line between ExxonMobil doing research and talking openly about the debate out there about what is known about climate change, and on the other hand advocating for policies that they think are going to be better for their own bottom line?

ERIC SCHNEIDERMAN: Well, there's nothing wrong with advocating for your own company.

What you're not allowed to do is commit fraud. You're not allowed to have the best climate change science that you're using to build — in your planning of offshore oil towers in the Arctic, where you have to take into account rising sea levels and the melting of the permafrost and things like that. If you're using that internally, but what you're putting out to

the world, directly and through these climate denial organizations, is completely in conflict with that, that's not OK.

JUDY WOODRUFF: New York State Attorney General Eric Schmitt, we thank you.

ERIC SCHNEIDERMAN: Thank you.

JUDY WOODRUFF: And joining me now is Kenneth Cohen. He is vice president for public and government affairs with ExxonMobil Corporation.

Kenneth Cohen, welcome.

Let me just begin by asking flat out, has Exxon in any way misled or been dishonest with the public about what it knows about climate change?

KENNETH COHEN, Vice President of Public & Government Affairs, Exxon Mobil Corporation: Well, Judy, first, thank you for the invitation to come on tonight's program.

And I also appreciate opening with that question, because the answer is a simple no. And what the facts will show is that the company has been engaged for many decades in a two-pronged activity here.

First, we take the risks of climate change seriously. And we also have been working to understand the science of climate change. And that activity started in the late '70s and has continued up to the present time. Our scientists have produced over 150 papers, 50 of which have been part of peer-reviewed publications.

Our scientists participate in the U.N.'s climate body. We have been participating in the U.N. activities beginning in 1988, running through the present time. At the same time, we have also been engaged in discussions on policy.

And in the discussions on policy, for example, in the late '90s, we were part of a large business coalition that opposed adoption in the U.S. of the Kyoto protocol. Now, why did we do that? We opposed the Kyoto protocol because it would have exempted from its application over two-thirds of the world's emitters. Think about that. And that was in 1997.

Going forward, if that policy were in effect today, it would have excluded almost 80 percent of the world's emissions. So that wasn't a good policy approach.

JUDY WOODRUFF: Well, let me ask you about one of the points that the attorney general made. He said Exxon over the last few decades, in his words, has shifted tactics, from taking climate change seriously, engaging in serious research, to, he said, much more recently questioning whether it's happening at all.

Is that an accurate, a fair description of the shift that's taken place?

KENNETH COHEN: No, it's not. And the facts are as follows.

We have endeavored with — to understand the science of this very complex subject, as I mentioned, beginning in the '70s and running to the present time. This is a very complex area. This is a very complex system, climate.

What we discovered, what our scientists discovered, working in conjunction with the U.S. government, with the Department of Energy, working in conjunction with some of the leading research institutions around the world in the '70s and the '80s, was that the tools available the science to get a handle on the risk, these tools needed to develop, and we, for example, were part of developing, working with others, some of the complex modeling that is used today.

And, today, that work continues. Now, on the policy side, we have to remember that ExxonMobil is a large energy provider, one of the world's largest energy companies. We have a two-pronged challenge in front of us. We produce energy that the modern world runs on.

And what we strive to do is produce that energy while at the same time reducing the environmental footprint associated with our operations and, most importantly, with consumers' use of the energy.

JUDY WOODRUFF: And I think people understand that, but I think what is striking was his — was the attorney general's comment that Exxon — what he's concerned about and wants to know is whether Exxon was using one set of scientific models to do its work in the Arctic, for

example, where Exxon has been engaged in drilling, and on the other hand telling the public, telling its shareholders a very different set of facts about the state of climate change.

KENNETH COHEN: Well, the facts will show that the company has been engaged with, not only on our own, but with — in conjunction with some of the leading researchers.

Our view of this very complex subject over the years, over the decades has mirrored that of the broader scientific community. That is to say, the discussions that have taken place inside our company, among our scientists mirror the discussions that have been taking place and the work that's been taking place by the broader scientific community.

That's what the facts will show.

JUDY WOODRUFF: Just final question. He made a point of saying that Exxon has funded a number of organizations that he said that have been openly climate change deniers. He mentioned the American Enterprise Institute. He mentioned the American Petroleum Institute and the American Legislative Exchange.

Has Exxon been funding these organizations?

KENNETH COHEN: Well, the answer is yes. And I will let those organizations respond for themselves.

But I will tell you that what we have been engaged in, both — we have been focused on understanding the science, participating with the broader scientific community in developing the science, while at the same time participating in understanding what would be and working with policy-makers on what would be appropriate policy responses to this evolving body of science.

That's why we were involved with large business coalitions challenging the adoption of the Kyoto protocol in the United States. And we then moved to oppose, for example, early adoption of cap-and-trade approaches in the U.S. One of the earlier approaches in the last decade would have exempted, for example, coal from its operations.

So we favor the adoption — policy-makers should consider policy and should adopt policy. We have disclosed the risks of climate change to our investors beginning in the middle part of the last decade and extending to the present time.

JUDY WOODRUFF: Kenneth Cohen, vice president for ExxonMobil, we appreciate having your point of view, as we do the New York attorney general.

Thank you.

KENNETH COHEN: Thank you.

Exhibit L

1 of 1 DOCUMENT

Oil Daily

November 13, 2015 Friday

SECTION: FEATURES

LENGTH: 725 words

HEADLINE: New York Attorney General Comments on Exxon Probe

BODY:

New York Attorney General Eric Schneiderman has offered details about the scope and rationale for his office's investigation of whether Exxon Mobil misled investors and the public by concealing facts about climate change and the risks it might pose to the oil and gas industry.

Unlike the New York attorney general's previous probes into four electric utilities -- Dynegy, AES, Xcel and Dominion -- and coal giant Peabody Energy, the scope of the Exxon investigation will be much broader than mere disclosure of climate risk in reports to investors.

Over the past eight years, New York investigated the utility companies -- three of which had plans to build more coal-fired power plants -- and Peabody for allegedly failing to warn investors of risks related to climate change in their filings to the Securities and Exchange Commission (SEC).

In contrast, the Exxon probe is seeking to find out if there were "inconsistencies" in how Exxon used its climate change research and knowledge since the late 1970s to make business decisions versus how it presented that information to investors and the public. Schneiderman's office has said the probe could be expanded to other oil companies.

The New York state investigation was spurred by accusations from InsideClimateNews and the Los Angeles Times that Exxon buried internal research dating back to the late 1970s that showed a link between burning fossil fuels and global warming, but that the company subsequently funded climate-change denial groups. The company rejects the allegations (OD Oct.23'15).

Schneiderman told a gathering sponsored by Politico in New York on Thursday that Exxon appeared to be "doing very good work in the 1980s on climate research" but that its "corporate strategy seemed to shift" later.

He said the company had funded organizations that were "aggressive climate deniers" such as the American Enterprise Institute, the American Legislative Exchange Council, and the American Petroleum Institute.

The New York attorney general said his probe was still at the "very beginning" and its subsequent course would depend on Exxon's "response to our subpoena." Exxon is currently assessing its response.

Schneiderman noted his office's assertive past efforts to "take action on climate change" and said the Exxon probe was "one aspect to it." He said society's failure to address climate change would be "viewed poorly by history."

Exxon and others have described the investigation as politically motivated. It has been facilitated by New York's controversial Martin Act, which gives the attorney general and his staff extraordinary powers to investigate and prosecute fraud (OD Nov.12'15).

Exxon has also said that InsideClimateNews and the LA Times "cherry-picked" information from its past research -- which it said never came to definitive conclusions on the complex science of climate change -- and took this information out of context.

Schneiderman said his office would be the judge of that. "We've issued a subpoena so we can read all the documents since 1977 and can see what the context was," he said.

Exxon began disclosing climate risk in its SEC filings in 2006, after current Chief Executive Rex Tillerson took the helm and adopted a much softer line on climate change than his predecessor, Lee Raymond.

However, Schneiderman said that as recently as 2010 an Exxon official still asserted that there "is no competent model" to assess climate change and its impacts.

"This is a well-run company full of engineers and we would assume its research would reflect that," he said.

Legal experts say it could be difficult for Schneiderman to make a case against Exxon, citing the gradual evolution of climate science over the years, the wide leeway granted by the SEC on disclosure of climate risk, and the challenge of establishing a direct link between adverse impacts of climate change and the practices of an individual company.

Nevertheless, they also point out that the New York attorney general wields a powerful weapon in the form of the broadly written Martin Act.

The state law, which dates from 1921, targets "all deceitful practices contrary to the plain rules of common honesty." It can result in civil or criminal charges -- and big financial penalties -- without requiring any proof of intent to defraud.

Paul Merolli, Washington

LOAD-DATE: November 19, 2015

Exhibit M

Kline, Scot

From: Michael Meade <Michael.Meade@ag.ny.gov>
Sent: Tuesday, March 22, 2016 4:51 PM
To: Kline, Scot; Morgan, Wendy
Cc: Lemuel Srolovic; Peter Washburn; Eric Soufer; Damien LaVera; Daniel Lavoie; Natalia Salgado; Brian Mahanna
Subject: RE: Climate Change Coalition

A couple of updates to report back to the group. First, after a follow up conversation with our AG, Al Gore will now be joining us for part of the day on 3/29. This will certainly add a little star power to the announcement!

We will also be joined by MA AG Healey, which will bring our total number of AG's to a grand total of 7. I'm waiting to hear back from New Mexico, which is our possible 8th Attorney General. On the staff side, a total of 16 states (including DC and USVI) will be joining us for the meetings.

From: Kline, Scot [mailto:scot.kline@vermont.gov]
Sent: Tuesday, March 22, 2016 11:41 AM
To: Michael Meade; Morgan, Wendy
Cc: Lemuel Srolovic; Peter Washburn; Eric Soufer; Damien LaVera; Daniel Lavoie; Natalia Salgado; Brian Mahanna
Subject: RE: Climate Change Coalition

Mike:

Looks good. One suggestion. We are thinking that use of the term "progressive" in the pledge might alienate some. How about "affirmative," "aggressive," "forceful" or something similar?

Thanks.

Scot

From: Michael Meade [mailto:Michael.Meade@ag.ny.gov]
Sent: Monday, March 21, 2016 2:59 PM
To: Kline, Scot <scot.kline@vermont.gov>; Morgan, Wendy <wendy.morgan@vermont.gov>
Cc: Lemuel Srolovic <Lemuel.Srolovic@ag.ny.gov>; Peter Washburn <Peter.Washburn@ag.ny.gov>; Eric Soufer <Eric.Soufer@ag.ny.gov>; Damien LaVera <Damien.LaVera@ag.ny.gov>; Daniel Lavoie <Daniel.Lavoie@ag.ny.gov>; Natalia Salgado <Natalia.Salgado@ag.ny.gov>; Brian Mahanna <Brian.Mahanna@ag.ny.gov>
Subject: Climate Change Coalition

Wendy and Scott,

Below are the broad goals and principles that we'd like to lay out as part of the coalition announcement next week. The filing of the brief and the defense of the EPA regs will highlight these principles. Let us know if you have any thoughts or edits to this. If it looks okay to you, I'll forward this around to the other offices when we have a draft release ready to go out. I'll also be asking the offices to contribute a quote from their respective AG's for the press release.

Let me know if you have any questions or comments.

Mike

****

Climate Coalition of Attorneys General

Principles:

- **Climate Change is Real**

The evidence that global temperatures have been rising over the last century-plus is unequivocal.

- **Climate Change Pollution Is The Primary Driver**

Natural forces do not explain the observed global warming trend.

- **People Are Being Harmed**

Climate change represents a clear and present danger to public health, safety, our environment and our economy -- now and in the future.

- **Immediate Action Is Necessary**

Climate change – and its impacts – is worsening. We must act now to reduce emissions of climate change pollution to minimize its harm to people now and in the future.

Pledge:

We pledge to work together to fully enforce the State and federal laws that require progressive action on climate change and that prohibit false and misleading statements to the public, consumers and investors regarding climate change.

- **Support Progressive Federal Action; Act Against Federal Inaction**

Support the federal government when it takes progressive action to address climate change, and press the federal government when it fails to take necessary action.

- **Support State and Regional Action**

Provide legal support to progressive state and regional actions that address climate change, supporting states in their traditional role as laboratories of innovation.

- **Defend Progress**

Serve as a backstop against efforts to impede or roll-back progress on addressing climate change.

- **Support Transparency And Disclosure**

Ensure that legally-required disclosures of the impacts of climate change are fully and fairly communicated to the public.

- **Engage The Public**

Raise public awareness regarding the impacts to public health, safety, our environment and our economy caused by climate change.

Exhibit N

Kline, Scot

From: Peter Washburn <Peter.Washburn@ag.ny.gov>
Sent: Friday, March 25, 2016 11:49 AM
To: Lemuel Srolovic; Kline, Scot; Morgan, Wendy
Cc: Michael Meade
Subject: Afternoon Discussion: State Responses
Attachments: Question Responses.docx

Wendy, Scot, Lem –

For this afternoon's discussion. See attached responses received from participating states re: what they are looking to add to/get out of the afternoon discussion.

As an overall summary, the responses demonstrate a strong desire among the states to learn what each other are up to -- a validation of the value of this meeting – as well as to support and sustain coordination on individual and collective efforts into the future – a validation of the value of a coalition

Attorneys General Climate Change Coalition

Questionnaire Responses

(1) What do you hope to get or learn during the afternoon? We want to make sure we cover what we can of your particular interests.

CT (Matthew Levine) – I hope to learn more about the substance of the disclosure investigation and the legal theories to support taking any action. It would also be helpful to understand the magnitude of such an action and the resources available to undertake it.

DC (Elizabeth Wilkins) – I am interested in hearing generally what other states are doing on climate change-related efforts and, in particular, in how they've staffed these efforts if they do not have a section dedicated to environmental issues.

IL (James Gignac) – Nothing more specific than what the agenda items are designed to draw out (discussion of coordination, possible new initiatives, etc.).

MA (Melissa Hoffer) – We'd like to learn the status of other states' investigations/plans and potential avenues for information sharing and coordination.

ME (Jerry Reid) – I am interested in learning more about potentially unfair and deceptive trade practices of Exxon as they relate to global warming, and the level of interest among our states in pursuing these claims.

OR (Paul Garrahan) – We look forward to learning about NY's oil company investigation, primarily. And to hear any other ideas you and other states may have. And to build our working relationship.

RI (Greg Schultz) – I am most interested in personally meeting the various state AAGs that I have worked with since 2009 on Clean Air Act and Climate Change issues. I would also be interested in looking ahead to our challenges for this year and beyond, such as possible other EPA-related actions and rulemaking, etc.

USVI (Claude Earl Walker) – We are eager to hear what other attorneys general are doing and find concrete ways to work together on litigation to increase our leverage.

VA (Daniel Rhodes) – We are mostly interested in hearing about efforts ongoing in the other jurisdictions present and how Virginia may complement those efforts and move forward here.

WA (Laura Watson) – We are interested in the discussion about utility efforts to barrier renewables. I am told that this has not been a problem in our state, or at least not a problem that we currently have the tools to address. I am interested in hearing what types of issues other states are seeing and what tools they are using to address those.

We are also interested in finding out whether other states are taking action on ocean acidification or whether this is largely a West Coast issue at this point.

We are also wondering whether other states are looking at the insurance side of things. Are states running into issues with insurance companies limiting coverage for climate-related claims?

(2) Please provide a very brief description of the office activities you will describe at the 1:45 segment of the agenda. We'd like to group related activities together. You will have 2-3 minutes to describe your activities.

CT (Matthew Levine) – I can briefly describe the various legal actions that Connecticut has participated in (many of which we have joined with New York and the extended coalition of States). I can also discuss Connecticut's extensive efforts to combat climate change through actions by our agency and shifting to renewable sources of energy. We have been successful in defending several legal challenges to the State's commitment to increase renewables sources of energy.

DC (Elizabeth Wilkins) – DC has not previously taken many affirmative steps to combat climate change. To the degree that we have had any involvement, it has been because we represent our Department of Energy and Environment in front of our Public Service Commission on matters related to creating incentives for more widespread use of sustainable energy.

IL (James Gignac) – Climate and energy-related activities of the Illinois Attorney General's Office include:

- Participation in federal multi-state cases involving air quality and carbon emissions;
- Enforcement actions and state regulatory matters involving coal-burning power plant emissions and coal ash;
- FERC and MISO issues involving capacity payments to coal plants;
- Financial challenges of coal industry (both mining and power sectors);
- Involvement in state level policy and regulations on energy efficiency, renewables, and utility business models

MA (Melissa Hoffer) – Advancing clean energy and making smart energy infrastructure investments (addresses our positions on new gas pipelines, LTKs for cleaner energy); promoting utility customer choice (solar incentives, grid mod); readiness and resilience (storm response, grid mod).

ME (Jerry Reid) – Maine has long participated with New York, Massachusetts and other like-minded states in litigation to bring about meaningful federal regulation of greenhouse gas emissions. Today this is primarily in the form of litigation supporting EPA in challenges to the Clean Power Plan.

OR (Paul Garrahan) – I assume this item is asking what work out offices are doing on climate change issues? Other than our CAA litigation with other states, we are also defending Oregon's Clean Fuels Program (low carbon fuel standards) at the 9th Circuit (after successfully getting the challenge dismissed by the district court) and at the Oregon Court of Appeals (rule making challenge). We also continue to defend the state in a public trust doctrine case asserting that the state has not taken sufficient steps to cut GHG emissions. That case is also currently at the Oregon Court of Appeals (for a second time).

RI (Greg Schultz) – I'm not sure exactly what you are looking for here. Perhaps I could discuss the challenges of working in a small state with limited environmental staff. For instance, as part of a 3-person Environmental and Land Use Unit within the RIAG's office, I prosecute a wide variety of civil environmental enforcement actions in state court; defend state agencies on environmental and related matters; litigate state's rights in land, including public rights-of-way, beaches and parks; counsel state agencies on environmental matters, including rulemaking; represent the State in multi-state environmental litigation, etc.

USVI (Claude Earl Walker) We just finished litigation against Hess Oil over an enforcement matter relating to Hess's decision to close its oil refinery in St. Croix, Virgin Islands, after receiving billions of dollars in tax breaks. As part of our $800 million settlement, we were able to create an environmental response trust that will deal with clean-up of the site and help convert part of it to solar development, we hope. We also have issued a subpoena to ExxonMobil and are preparing third party subpoenas on the common issue of its potential misrepresentations regarding its knowledge of climate change.

VA (Daniel Rhodes) – No response.

WA (Laura Watson) – As you know, Washington State is one of the parties to the multi-state litigation defending the Clean Power Plan. We have also intervened in a lawsuit in defense of Oregon's low carbon fuel standard. We are looking at possible causes of action based on fossil fuel company disclosures and have just started looking at possible common law causes of action (e.g., nuisance suits). Other than that, the bulk of our climate work consists of providing legal support to our clients in the Governor's Office and the Department of Ecology. Specifically, we are supporting a regulatory effort to cap carbon emissions from transportation fuels, natural gas, and stationary sources. We are also providing legal support related to the development of environmental impact statements for two large coal export facilities proposed in Washington and three proposed oil terminals.

(3) Specific items you would like to discuss in the discussion of expanding the coalition's work beyond the federal/EPA advocacy and litigation.

CT (Matthew Levine) – None.

DC (Elizabeth Wilkins) – Nothing to add – DC will most likely be primarily in listening mode as this work is new for us.

IL (James Cignac) – Consider how to increase our office's coordination on matters involving DOE, FERC, and ISOs/RTOs. How we can be better link the consumer and environmental interests of our offices in these venues? Similarly, regarding state energy and climate policies, can we strengthen or bolster our office's sharing of knowledge, materials, experts, etc. on things like energy efficiency, renewable portfolio standards, demand response, net metering, and utility rate design? Finally, I would be interested in talking with any other states (time permitting) dealing with coal mine or power plant closures and issues of jobs, property taxes, decommissioning or clean-up, and site re-use.

MA (Melissa Hoffer) – See above.

ME (Jerry Reid) – None.

OR (Paul Garrahan) – We don't have any particular ideas, other than our interest in the possible oil company litigation, but we are open to other possibilities.

RI (Greg Schultz) – I am open for any discussion. I would like to hear from the NHAG and other states on their MTBE litigation.

USVI (Claude Earl Walker) – We are interested in identifying other potential litigation targets.

VA (Daniel Rhodes) – Not sure we have specific items for the afternoon discussion at this time but likely will be prompted by the discussions. We would be very interested in any discussion and thoughts about resource sharing through collaborative thinking in the formation of coalition building.

WA (Laura Watson) – I think I probably covered this in response to the first question. The only thing I'd add is that we're interested in the legal theories under section 115 of the federal Clean Air Act, although it looks like the focus in the agenda is on non-federal actions.

(4) Will any consumer protection or securities staff be participating? Fossil fuel company disclosure investigations raise consumer protection and securities issues as well as climate change. If enough folks from that part of your offices are participating, we could plan a break out session for them.

CT (Matthew Levine) – We will not have someone from our Consumer protection division but I work closely with that group and am getting familiar with the consumer protection and securities issues related to climate change and we would likely be the group (environment) that works on these issues.

DC (Elizabeth Wilkins) – I will be the only person from DC participating.

IL (James Gignac) Not in the meeting itself, but we have do have consumer protection staff interested in learning more about the issues. We do not have securities staff.

MA (Melissa Hoffer) – No.

ME (Jerry Reid) – No.

OR (Paul Garrahan) – Yes, Sr AAG Tim Nord will attend from our consumer protection unit.

RI (Greg Schultz) – No.

USVI (Claude Earl Walker) – Yes, we will have our outside counsel/Special Assistant Attorney General, who has specialized in consumer protection work.

VA (Daniel Rhodes) – No response.

WA (Laura Watson) – Our CP folks will not be attending but I have been in contact with them and intend to report back to them after the meeting. I've reviewed our office's internal analysis on the various causes of action available in Washington State and can contribute at least generally to the discussion.

(5) Any other thoughts about the afternoon's working session?

CT (Matthew Levine) – None.

DC (Elizabeth Wilkins) – None.

IL (James Gignac) – None.

MA (Melissa Hoffer) – None.

ME (Jerry Reid) – None.

OR (Paul Garrahan) – We look forward to the discussion.

RI (Greg Schultz) – I would be interested in discussing the possibility of setting up additional AG meetings with NESCAUM (Northeast States for Coordinated Air Use Management) on regional air issues (NESCAUM works closely with state air agencies on a variety of air issues). I work closely with my state air agency, but never seem to sit down with them to discuss their specific issues and concerns.

USVI (Claude Earl Walker) – None.

VA (Daniel Rhodes) – None.

WA (Laura Watson) – None.

Exhibit O

Union of Concerned Scientists
Science for a healthy planet and safer world

Peter Frumhoff

Director of Science & Policy

Peter C. Frumhoff is director of science and policy at the Union of Concerned Scientists, and chief scientist of the UCS climate campaign. He ensures that UCS brings robust science to bear on our efforts to strengthen public policies, with a particular focus on climate change.A global change ecologist, Dr. Frumhoff has published and lectured widely on topics including climate change impacts, climate science and policy, tropical forest conservation and management, and biological diversity. He was a lead author of the Intergovernmental Panel on Climate Change's (IPCCs) 2007 Fourth Assessment Report and the 2000 IPCC Special Report on Land Use, Land-Use Change, and Forestry, and served as chair of the 2007 Northeast Climate Impacts Assessment. He serves on the Advisory Committee on Climate Change and Natural Resource Science at the U.S. Department of the Interior, the board of directors of the American Wind Wildlife Institute, and the steering committee for the Center for Science and Democracy at UCS. He is an associate of the Harvard University Center for the Environment.

In 2014, Dr. Frumhoff served as a Cox Visiting Professor in the School of Earth Sciences at Stanford University. Previously, he has taught at Tufts University, Harvard University, and the University of Maryland. He also served as an AAAS Science and Diplomacy Fellow at the U.S. Agency for International Development, where he designed and led conservation and rural development programs in Latin America and East Africa. He holds a Ph.D. in ecology and an M.A. in zoology from the University of California, Davis, and a B.A. in psychology from the University of California, San Diego.

Dr. Frumhoff has been quoted widely, including by *The Boston Globe, Christian Science Monitor, The Guardian, National Journal, Newsweek, The New York Times*, and *The Washington Post*, and has appeared on National Public Radio.

Peter Frumhoff's Selected Publications

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Peter Frumhoff and a panel discussion (including Gus Speth) on “Who is Responsible for Climate Change?” on October 16, 2015 — watch a video of the event.

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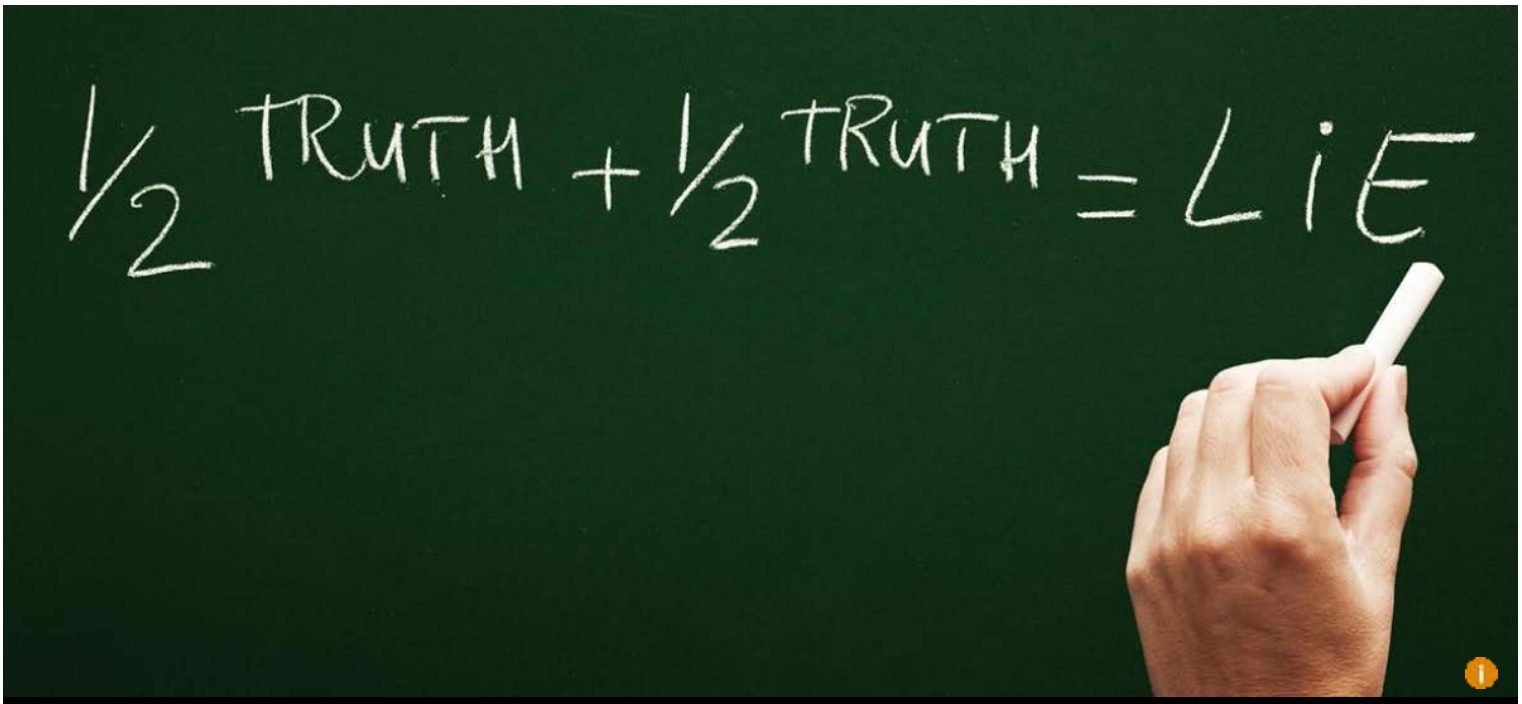
Exhibit P

Union of Concerned Scientists
Science for a healthy planet and safer world



Global Warming Solutions: Fight Misinformation
Setting the record straight with sound, science-based evidence.

Why has it been so difficult to achieve meaningful solutions to global warming?

Media pundits, partisan think tanks, and special interest groups funded by fossil fuel and related industries raise doubts about the truth of global warming.

These contrarians downplay and distort the evidence of climate change, demand policies that allow industries to continue polluting, and attempt to undercut existing pollution standards.

This barrage of misinformation misleads and confuses the public about the growing consequences of global warming — and makes it more difficult to implement the solutions we need to effectively reduce the man-made emissions that cause global warming.

Together with its members and supporters, UCS actively fights misrepresentations of climate science and provides sound, science-based evidence to set the record straight, including resources to help you communicate the real facts about global warming.

Holding fossil fuel companies accountable

Major fossil fuel companies have known for decades that their products—oil, natural gas, and coal—cause global warming. Their own scientists told them so more than 30 years ago. In response, they decided to deceive shareholders, politicians, and the public—you!—about the facts and risks of global warming.

These companies should immediately stop funding climate deception. They should bear their fair share of responsibility for the damage caused by their products.

Learn more:

- Major Fossil Fuel Companies Knew about Global Warming...and Did Worse than Nothing >

The Climate Deception Dossiers

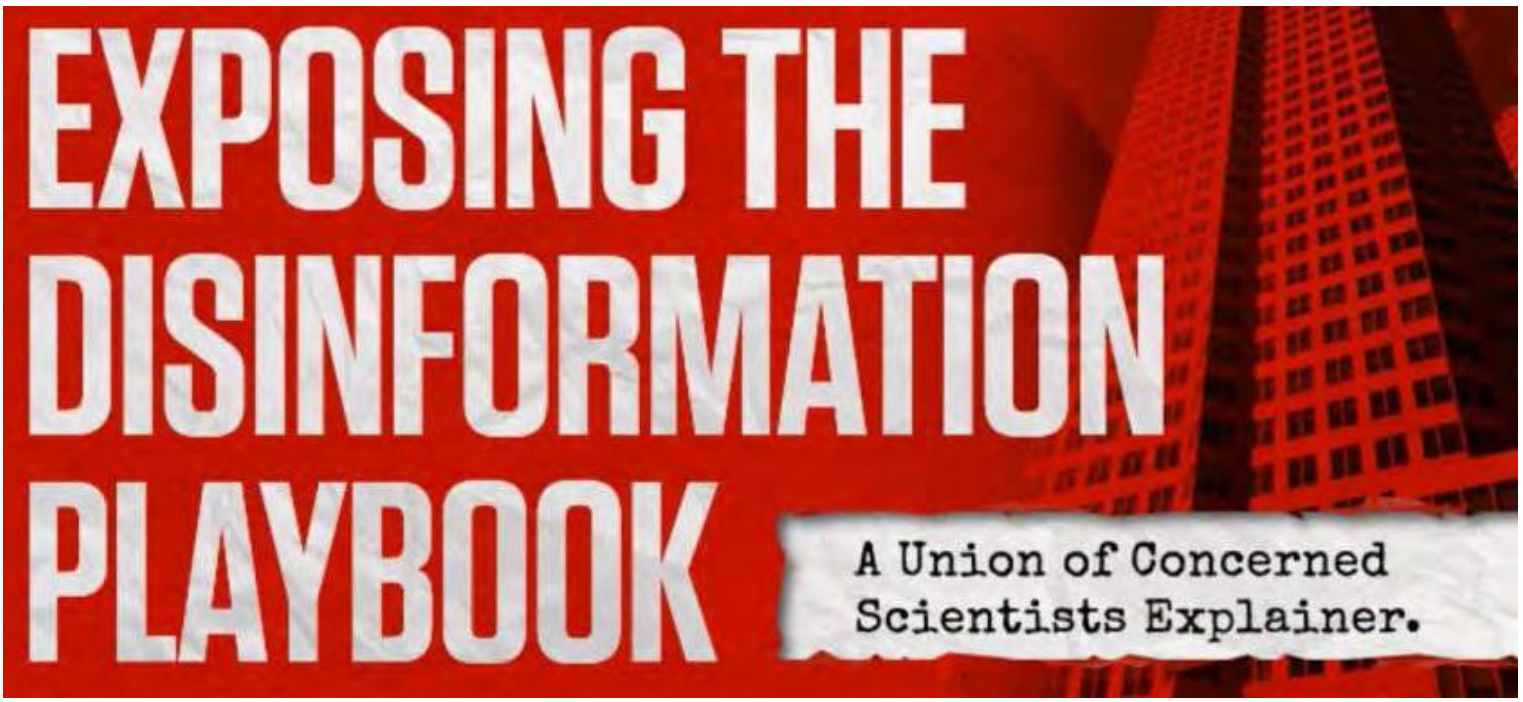
For nearly three decades, many of the world's largest fossil fuel companies have knowingly worked to deceive the public about the realities and risks of climate change. They continue to do so today. Their deceptive tactics are now highlighted in The Climate Deception Dossiers—collections of internal company and trade association documents that have either been leaked to the public, come to light through lawsuits, or been disclosed through Freedom of Information (FOIA) requests. Addition examples of deception can be found in our infographic, Climate Science vs. Fossil Fuel Fiction.

Documenting inaccurate coverage of climate science by major cable news outlets

Photo: Grafissimo/iStock

CNN, Fox News, and MSNBC are the most widely watched cable news networks in the U.S. An analysis of 2013 coverage shows that the accuracy of climate science coverage varies significantly by network — and that all of them can and should take steps to improve.

Exposing the fossil fuel industry's disinformation playbook



In this interactive slideshow, UCS reveals the secret tactics used by the fossil fuel industry to spread disinformation and delay action on climate change — the very same tactics used by Big Tobacco for years to mislead the public about the dangers of smoking.

Learn more:

- Who's Fighting the Clean Power Plan and EPA Action on Climate Change? >

Calling out Fox News for misleading coverage of climate science

Millions of Americans get information about climate science from the Fox News Channel, yet a 2012 UCS snapshot analysis found that representations of climate science on Fox News Channel were misleading 93 percent of the time.

Another prominent News Corporation outlet, the Wall Street Journal's opinion page, similarly misled the public in 81 percent of letters, op-eds, columns, and editorials.

Showing how the news media help the fossil fuel industry spread disinformation

A UCS investigation showed that the U.S. news media routinely fail to inform the public about the fossil fuel industry funders behind climate change contrarian think tanks. From 2011 - 2012, two-thirds of stories from eight top news organizations did not identify the fossil fuel industry funding of eight prominent climate contrarian groups.

Exposing special interest groups and policy makers who misrepresent climate science

Got Science?, a monthly UCS column, features stories of policy makers and special interest groups who have run roughshod over scientific evidence. Past columns have debunked fake government reports, countered misinformation about renewable energy, and exposed state-level efforts to suppress research on sea level rise.

Fighting back against attacks on climate science and scientists

Photo: arturbo/iStock

UCS set the record straight in several recent instances of misinformation about climate science, and fought back against deliberate attacks on climate scientists, including:

- Actively — and successfully — fighting back against attacks on climate scientist Michael Mann by Virginia Attorney General Ken Cuccinelli.
- Defending the Intergovernmental Panel on Climate Change (IPCC) from misleading allegations about its 2007 climate change assessment.
- Revealing the truth about ExxonMobil's disinformation tactics, which included funneling nearly $16 million to a network of 43 advocacy organizations that seek to confuse the public on climate science.
- Debunking misinformation about "Climategate," a manufactured controversy over emails stolen from the University of East Anglia's Climatic Research Unit.
- Setting the record straight in the popular press for books that distort the facts about climate science, including *The Skeptical Environmentalist*, *SuperFreakonomics*, and Michael Chrichton's thriller, *State of Fear*.

Resources for effectively communicating climate science

You can help fight misinformation about global warming by effectively communicating the facts about climate science, whether to your friends, your community, the media, or directly to policy makers.

UCS offers a range of resources to help you improve your science communication skills and develop effective techniques for presenting information about global warming, including a series of webinars designed to provide you with useful tools and best practices for talking about global warming and understanding how people perceive and take in information.

Learn more:

- Webinar Series: A Scientist's Guide to Communicating Climate Science
- America's Climate Choices Webinar Series
- Webinar Series: A Voice for Science and Scientists in California Climate Policy
- Increasing Public Understanding of Climate Risks and Choices
- Suggested Scientific Concepts on Urgency
- Global Warming Materials for Educators

We Need Your Support to Make Change Happen

We *can* reduce global warming emissions and ensure communities have the resources they need to withstand the effects of climate change—but not without you. Your generous support helps develop science-based solutions for a healthy, safe, and sustainable future.

$25 $50 $100 $250 $1000 Other

Donate

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[FROM OUR BLOGS]

Abuse of Power: ExxonMobil, Chairman Lamar Smith, and the First Amendment
GRETCHEN GOLDMAN | MAY 19, 2016

Suddenly, the Future is Clear for Solar Energy
MIKE JACOBS | MAY 19, 2016

With the First Lawsuit Against ExxonMobil for Climate Deception Announced, What Do We Know About Its Risk from Climate Change Impacts?
GRETCHEN GOLDMAN | MAY 19, 2016

[VIDEO]

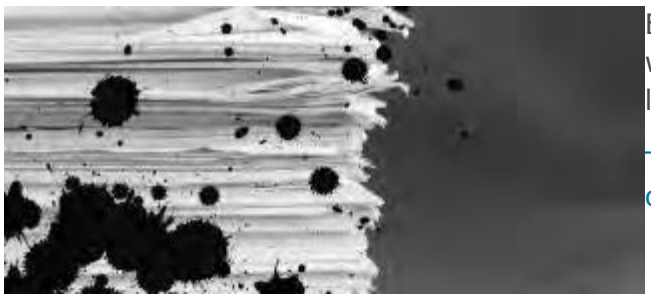
[ON TWITTER]

[INFOGRAPHIC]

CLIMATE SCIENCE VS. FOSSIL FUEL FICTION

Fossil fuel companies and their lobbying groups have been deceiving the public for nearly 30 years about the facts of global warming.

[TAKE ACTION]



ExxonMobil claims that, "We do not fund or support those who deny the reality of climate change." But actions speak louder than words.

Tell ExxonMobil to stop funding front groups that distort or deny climate change. >

Union of Concerned Scientists
Science for a healthy planet and safer world

Science for a healthy planet and safer world

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Exhibit Q

Smoke, Mirrors & Hot Air

How ExxonMobil Uses Big Tobacco's Tactics to Manufacture Uncertainty on Climate Science

Union of Concerned Scientists
January 2007

The Union of Concerned Scientists is the leading science-based nonprofit working for a healthy environment and a safer world.

UCS combines independent scientific research and citizen action to develop innovative, practical solutions and secure responsible changes in government policy, corporate practices, and consumer choices.

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Contents

Acknowledgments

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UCS would also like to thank the following individuals for their helpful comments on various aspects of the report: Naomi Oreskes, Rick Piltz, James McCarthy, Don Wuebbles, Erik Conway, Kevin Knobloch, Alden Meyer, and Peter Frumhoff.

We would also like to acknowledge the invaluable resource that has been created by the court ordered public disclosure of tobacco industry documents.

The findings and opinions expressed in this report do not necessarily reflect the opinion of the reviewers who provided comment on its content. Both the opinions and the information contained herein are the sole responsibility of the Union of Concerned Scientists.

Executive Summary

In an effort to deceive the public about the reality of global warming, ExxonMobil has underwritten the most sophisticated and most successful disinformation campaign since the tobacco industry misled the public about the scientific evidence linking smoking to lung cancer and heart disease. As this report documents, the two disinformation campaigns are strikingly similar. ExxonMobil has drawn upon the tactics and even some of the organizations and actors involved in the callous disinformation campaign the tobacco industry waged for 40 years. Like the tobacco industry, ExxonMobil has:

- ***Manufactured uncertainty*** by raising doubts about even the most indisputable scientific evidence.
- Adopted a strategy of ***information laundering*** by using seemingly independent front organizations to publicly further its desired message and thereby confuse the public.
- ***Promoted scientific spokespeople*** who misrepresent peer-reviewed scientific findings or cherry-pick facts in their attempts to persuade the media and the public that there is still serious debate among scientists that burning fossil fuels has contributed to global warming and that human-caused warming will have serious consequences.
- ***Attempted to shift the focus*** away from meaningful action on global warming with misleading charges about the need for "sound science."
- ***Used its extraordinary access to the Bush administration*** to block federal policies and shape government communications on global warming.

The report documents that, despite the scientific consensus about the fundamental understanding that global warming is caused by carbon dioxide and other heat-trapping emissions, ExxonMobil has funneled about $16 million between 1998 and 2005 to a network of ideological and advocacy organizations that manufacture uncertainty on the issue. Many of these organizations have an overlapping—sometimes identical—collection of spokespeople serving as staff, board members, and scientific advisors. By publishing and republishing the non-peer-reviewed works of a small group of scientific spokespeople, ExxonMobil-funded organizations have propped up and amplified work that has been discredited by reputable climate scientists.

ExxonMobil's funding of established research institutions that seek to better understand science, policies, and technologies to address global warming has given the corporation "cover," while its funding of ideological and advocacy organizations to conduct a disinformation campaign works to confuse that understanding. This seemingly inconsistent activity makes sense when looked at through a broader lens. Like the tobacco companies in previous decades, this strategy provides a positive "pro-science" public stance for ExxonMobil that masks their activity to delay meaningful action on global warming and helps keep the public debate

stalled on the science rather than focused on policy options to address the problem.

In addition, like Big Tobacco before it, ExxonMobil has been enormously successful at influencing the current administration and key members of Congress. Documents highlighted in this report, coupled with subsequent events, provide evidence of ExxonMobil's cozy relationship with government officials, which enables the corporation to work behind the scenes to gain access to key decision makers. In some cases, the company's proxies have directly shaped the global warming message put forth by federal agencies. Finally, this report provides a set of steps elected officials, investors, and citizens can take to neutralize ExxonMobil's disinformation campaign and remove this roadblock to sensible action for reducing global warming emissions.

Putting the Brakes on ExxonMobil's Disinformation Campaign

For more than two decades, ExxonMobil scientists have carefully studied and worked to increase understanding of the issue of global climate change.

—EXXONMOBIL WEBSITE, 2006 [152]

In September 2006, the Royal Society, Britain's premier scientific academy, sent a letter to ExxonMobil urging the company to stop funding the dozens of groups spreading disinformation on global warming and also strongly criticized the company's "inaccurate and misleading" public statements on global warming.[153] ExxonMobil responded by defending the statement in its 2005 Corporate Citizenship Report that scientific uncertainties make it "very difficult to determine objectively the extent to which recent climate changes might be the result of human actions."[154] However, ExxonMobil also stated that it has stopped funding the Competitive Enterprise Institute, although it is unclear whether its support is discontinued permanently. Either way, as of this publication date, this commitment leaves intact the rest of ExxonMobil's carefully constructed echo chamber of climate disinformation.

The unprecedented letter from the British Royal Society demonstrates the level of frustration among scientists about ExxonMobil's efforts to manufacture uncertainty about global warming. ExxonMobil's dismissive response shows that more pressure is needed to achieve a real change in the company's activities.

The time is ripe to call for a dramatic shift in ExxonMobil's stance on global warming. After nearly 13 years, Lee Raymond, an outspoken enemy of environmental regulation, stepped down at the end of 2005 and the company promoted Rex Tillerson to the position of CEO. While Tillerson has been less confrontational than his predecessor on the global warming issue, he has yet to make real commitments on global warming. He has an opportunity to implement key changes in ExxonMobil's climate change activities and should be encouraged to do so through a wide variety of approaches: congressional action, shareholder engagement, media accountability, and consumer action.

CONGRESSIONAL ACTION

Elected officials can and should assert their independence from ExxonMobil in several ways.

Oversight

Lawmakers should conduct oversight of ExxonMobil's disinformation campaign as well as its effort to delay action on global warming. Congressional investigations played a key role in revealing the extent of Big Tobacco's work to hide the public health impacts of smoking. By requiring ExxonMobil executives to testify before Congress and by obtaining internal documents through subpoena, congressional investigators could expose additional information about ExxonMobil's strategic disinformation campaign on global warming.

Campaign Contributions

Lawmakers and candidates should reject campaign

contributions from ExxonMobil and its executives until the disinformation campaign ceases and the corporation ends its opposition to mandatory regulation of global warming emissions from fossil fuels.

Policy Action

The true signal that ExxonMobil's disinformation campaign has been defeated will come when Congress passes policies that ensure global warming emission reductions. Congress should bring stakeholders—including ExxonMobil—to the table, as lawmakers develop and enact a set of policies to achieve mandatory global warming emission reductions such as improved energy efficiency standards for appliances and vehicles, renewable electricity standards, and economywide caps on global warming emissions. In addition, Congress should shift government energy support and incentives away from conventional coal, oil, and gas and toward clean, renewable energy sources. Lawmakers should also encourage the integration of low carbon fuels into the supply chain by developing policies to ensure that more gas stations sell biofuels such as E85 and that flexible fuel vehicles comprise a greater percentage of the vehicle fleet.

These actions will not only reduce global warming emissions, but will help address national security concerns about our growing oil dependence, reduce demand pressures that are driving up natural gas prices, save energy consumers billions of dollars, and create hundreds of thousands of new jobs producing clean energy and vehicle technologies. [155]

Through these and other efforts, our elected representatives can bring ExxonMobil's campaign of disinformation on global warming to an end.

SHAREHOLDER ENGAGEMENT

Investors will pay a steep price if ExxonMobil refuses to prepare to do business in a world where global warming emission reductions are required, as they most certainly will be over the next several years. Investors can help shift ExxonMobil's position on global warming and clean energy solutions. ExxonMobil shareholders can join major institutional investors in calling on the company to begin to invest in clean energy options that would protect the long-term health of the corporation and the planet.[156]

In 2006, shareholders offered a resolution calling on the ExxonMobil board to establish policies designed to achieve the long-term goal of making ExxonMobil the recognized leader in low-carbon emissions in both the company's production and products. In May 2006, 17 leading U.S. pension funds and other institutional investors holding $6.75 billion in ExxonMobil shares asked for a face-to-face-meeting with members of the ExxonMobil board of directors. This request stemmed from growing concerns in the financial world that ExxonMobil is "a company that fails to acknowledge the potential for climate change to have a profound impact on global energy markets, and which lags far behind its competitors in developing a strategy to plan for and manage these impacts," as articulated in a letter to ExxonMobil from investors in May of 2006.[157] Connecticut State Treasurer Denise Nappier elaborated on the group's concerns, stating that "in effect, ExxonMobil is making a massive bet—with shareholders' money—that the world's addiction to oil will not abate for decades, even as its competitors are taking significant steps to prepare for a rapidly changing energy environment. As investors, we are concerned that ExxonMobil is not sufficiently preparing for 'tomorrow's energy' and runs the risk of lagging significantly behind its rivals."[158]

ExxonMobil's competition is indeed moving forward in renewable energy research and deployment. In 2005, BP launched BP Alternative Energy, a project that plans to invest $8 billion

over the next ten years to advance clean energy technologies such as solar, wind, and bioenergy.[159] Similarly, Shell has invested $1 billion in alternative energy development since 2000. It is a major biofuels distributor, a developer of the next generation of solar technology, and it has 350 MW of operational wind capacity.[160] While these companies could do more to address global warming, their actions represent an important step. Investors can encourage ExxonMobil to convert funds currently used for the disinformation campaign to add to the recent research and development investments ExxonMobil contributes to institutions devoted to legitimate climate science and solutions research.

Shareholders should also support resolutions calling on ExxonMobil to disclose the physical, financial, and competitive risks that global warming poses to the corporation. For example, the 2005 hurricane season suggests that the country's oil refining infrastructure is vulnerable to an increase in the severity of extreme weather events that scientists project are likely to occur with continued warming. ExxonMobil's total natural gas production decreased in 2005 partly as a result of the impacts of Hurricanes Katrina and Rita in the Gulf of Mexico.[161]

Individuals who do not have a direct investment in ExxonMobil may own pension funds and mutual funds invested in ExxonMobil. These investors can insist that their fund managers assess the global warming risk of ExxonMobil investments and support global warming shareholder resolutions targeting ExxonMobil. While institutional investors increasingly support these resolutions, mutual fund companies are lagging behind and putting investors at risk. None of the top 100 U.S. mutual funds support climate change resolutions. For example, the three largest mutual fund companies: American Funds, Fidelity, and Vanguard all have major holdings in ExxonMobil,

Investors will pay a steep price if ExxonMobil refuses to prepare to do business in a world where global warming emission reductions are required.

but have not yet committed to support future climate resolutions. More pressure from investors is needed to influence these and other mutual fund companies.

MEDIA ACCOUNTABILITY

Too often, journalists' inclination to provide political "balance" leads to inaccurate media reporting on scientific issues. Far from making news stories more balanced, quoting ExxonMobil-funded groups and spokespeople misleads the public by downplaying the strength of the scientific consensus on global warming and the urgency of the problem. Citizens must respond whenever the media provides a soapbox for these ExxonMobil-sponsored spokespeople, especially when the story fails to reveal their financial ties to ExxonMobil or those of their organizations.

Toward this end, citizens can send letters to the editor highlighting the financial ties that quoted "experts" have to ExxonMobil or ExxonMobil-funded organizations. They can also encourage individual reporters and media outlets to report science accurately. Well-established scientific information should be reported as such, and members of the press should distinguish clearly between those views of their sources that are supported in the peer-reviewed scientific literature versus those that have only been propped up in the ExxonMobil-financed echo chamber.

CONSUMER ACTION

Finally, consumers can exercise their influence in

the marketplace by refusing to purchase ExxonMobil's gasoline and other products until the company ends its disinformation campaign. ExxposeExxon, a collaborative campaign led by many of the nation's largest environmental and public interest advocacy organizations, has already gathered boycott pledges from more than 500,000 consumers who are calling on the company to change course on global warming.[162] In particular, consumers should demand that ExxonMobil stop funding groups that disseminate discredited information on global warming and require the organizations it funds to disclose their funding sources and to subject their published, science-based information to peer review.

It is time for ExxonMobil customers to hold the corporation accountable for its environmental rhetoric. For example, ExxonMobil's 2005 Corporate Citizen Report states, "We seek to drive incidents with environmental impact to zero, and to operate in a manner that is not harmful to the environment."[163] Even while making such pronouncements, ExxonMobil has, as this report demonstrates, been engaged in a disinformation campaign to confuse the public on global warming. At the same time, heat-trapping emissions from its operations continue to grow.

It is critical that ExxonMobil impose strict standards on the groups that receive funding for climate-related activities. Not only should it cease funding groups who disseminate discredited information on global warming, it should require funded organizations to acknowledge ExxonMobil support for their work. An incident at a September 2005 National Press Club briefing indicates the importance of such disclosure. At the briefing, Indur Goklany, an analyst at the ExxonMobil-funded National Center for Policy Analysis, presented "Living with Global Warming," a paper that favors adapting to global warming over curbing the problem with emission reduction. Neither the paper nor Goklany advertised the organization's ties to ExxonMobil, which would have remained undisclosed had not an audience member asked Golanky about the organization's $315,000 in funding from ExxonMobil between 1998 and 2004. Requiring individuals like Goklany to disclose this information will help the public more effectively evaluate the independence of their statements.

In June 2005, U.S. State department documents revealed that the White House considered ExxonMobil "among the companies most actively and prominently opposed to binding approaches [like Kyoto] to cut greenhouse gas emissions."[164] Customers should press ExxonMobil to end its opposition to federal policies that would ensure reductions in U.S. global warming emissions. Moreover, it should be urged to set a goal to reduce the total emissions from its products and operations and demonstrate steady progress toward that goal. Consumers should also call on ExxonMobil to prepare to comply with imminent national and international climate policies by transitioning to cleaner renewable fuels and investing in other clean energy technologies. In particular, ExxonMobil should develop a plan to increase production of low-carbon cellulosic ethanol and make it available at its fueling stations.

To make their actions visible to the company, consumers should relay their demands directly to Rex Tillerson at ExxonMobil's corporate headquarters (5959 Las Colinas Boulevard, Irving, Texas 75039-2298; phone number 972-444-1000).

To access web tools focused on holding ExxonMobil accountable for its activities on global warming, visit *www.ExxposeExxon.com*. The site includes sample letters to Rex Tillerson and members of Congress.

Exhibit R

Democrat AGs signed secrecy pact to hide details of probe into climate-change dissent

*New York Attorney General Eric T. Schneiderman speaks during a news conference in New York on Feb. 11, 2016. (Associated Press) **FILE** more >*

By Valerie Richardson - *The Washington Times - Thursday, August 4, 2016*

Democratic attorneys general signed a secrecy agreement aimed at keeping hidden the details of their investigation into climate change dissenters, according to documents released Thursday.

The Common Interest Agreement was signed in April and May by representatives for 17 attorneys general as part of their collaborative pursuit of fossil fuel companies, academics and think tanks that challenge the narrative of catastrophic climate change.

Such agreements are typically used by prosecutors on investigations involving litigation, but the pact signed by AGs United for Clean Power was different. The agreements were "clearly drafted to obstruct open-records requests while these AGs carried out a political campaign against their critics," said the Energy and Environment Legal Institute, which obtained the documents.

PHOTOS: Stars who support Trump

"It's baffling that these AGs feel they can trample on their own states' public records laws," David W. Schnare, E&E Legal general counsel, said in a Thursday statement.

"If they truly believe that they are engaged in anything other than a purely political campaign, they should have no problem explaining to the public what they are doing and subjecting their activities to the scrutiny their legislatures demanded," he said.

He said the institute obtained the 17 agreements through open-records requests and a lawsuit against the District of Columbia.

PHOTOS: Best shotguns for home defense

"The time and effort it took to obtain the document; the arguments made to defeat efforts to obtain it; and the AGs' reluctance even to acknowledge the existence of such an agreement, all raise more questions about what these AGs are hiding," said the institute.

The E&E Legal Institute previously obtained an unsigned copy of the Common Interest Agreement through an open-records request, but the Thursday release marks the first time the signed documents have been made available to the public.

Eric Soufer, a spokesman for New York Attorney General Eric T. Schneiderman, defended the use of the agreement, calling it a "routine practice during a multistate investigation."

"These agreements preserve the confidentiality of public information shared among state law enforcement officials during the course of an investigation," Mr. Soufer said in a Thursday email. "These agreements are also routinely employed by non-government entities engaged in private litigation."

The suggestion that such an agreement is "anything other than a standard, routine, and responsible law enforcement practice is utter nonsense."

"This is just another press release by fossil fuel industry allies hoping to distract, deflect, and delay a serious fraud investigation into potential corporate fraud and malfeasance," Mr. Soufer said. "Needless to say, it will not be effective."

Former Denver prosecutor Craig Silverman said both sides have a point: Such agreements are not rare, and they can be used to avoid disclosure.

"It is not unusual for plaintiffs' attorneys to have cooperative working agreements with other plaintiffs with whom they share common interests," Mr. Silverman said.

At the same time, he said, "Lawyers and their clients are always looking for a privilege, which is a legal way of keeping secrets.

"Once this privilege is asserted, it becomes difficult to prove the cooperation agreement is a pretext so as to pierce the privilege," Mr. Silverman said. "EELI's complaining is understandable because this interstate agreement works specifically to shield the government's strategizing and litigation preparation behind closed doors. A lot of interesting stuff can be claimed as shielded under that umbrella of privilege."

The agreements were part of a coalition of 17 attorneys general — 16 Democrats and one independent — who announced at a March 29 press conference that they would join forces to pursue companies such as Exxon Mobil accused of misleading the public about the consequences of climate change.

Yet the 17 prosecutors who participated in the New York press event are not the same 17 who signed the agreements.

Iowa Attorney General Tom Miller lent his name to the March unveiling of AGs United for Clean Power, but has not signed the Common Interest Agreement, said Iowa Deputy Attorney General Tam Ormiston.

"At this moment, we aren't a part of the Common Interest Agreement. We haven't withdrawn and we haven't gone forward, either," Mr. Ormiston told The Washington Times.

Meanwhile, a deputy for New Hampshire Attorney General Joseph Foster signed the agreement April 29 even though Mr. Foster did not take part in the March press conference, which featured former Vice President Al Gore.

New Hampshire became involved a week after a rally outside the Statehouse urging Mr. Foster to join the coalition and investigate Exxon Mobil for climate change fraud. The protest was sponsored by NextGen Climate New Hampshire and 350.org.

NextGen has powerful connections, particularly in the Granite State: The New Hampshire arm is headed by Becky Wasserman, daughter of Lee Wasserman, who runs the Rockefeller Family Fund, a key player in funding the climate change movement.

The other states and jurisdictions that have signed on to the Common Interest Agreement are California, Connecticut, the District of Columbia, Illinois, Massachusetts, Maryland, Maine, Minnesota, New Hampshire, New Mexico, New York, Oregon, Rhode Island, Virginia, the Virgin Islands and Washington.

At least three of the attorneys general — Mr. Schneiderman, Massachusetts' Maura Healey and Claude E. Walker of the Virgin Islands — have issued subpoenas as part of their investigations into Exxon Mobil.

The Virgin Islands subpoenas, which have since been dropped, called for Exxon's communications with more than 100 universities, professors and think tanks, while the Massachusetts subpoena named a dozen organizations that have challenged the catastrophic view of climate change.

Critics have blasted the cooperative investigation as a free speech violation intended to chill debate, while Mr. Schneiderman has argued that climate change "fraud" is not protected by the First Amendment.

Chris Horner, E&E senior legal fellow, said the document was "far less a proper common interest agreement than a sweeping cloak of secrecy."

He noted that the agreement includes a provision that allows information to be shared with "other persons, provided that all Parties consent in advance."

That provision would presumably allow the prosecutors to divulge information about their investigation with environmentalists and climate change groups, which have been active in devising and promoting the strategy to pursue climate change skeptics through the legal system.

"It was drafted not in anticipation of any particular litigation but in obvious anticipation of open records requests," Mr. Horner said. "We have already revealed they've colluded on this use of their law enforcement powers to wage a political campaign with political activist groups and activist lawyers. This is wrong and in the end will be fully exposed."

Exhibit S

PRACTICE AREAS

Environmental Litigation

Our environmental law practice handles major cases with national and even international significance. We are most well known for our role in launching global warming litigation.

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Personal Injuries

We represent injured persons in a wide variety of cases for recovery of substantial monetary damages against wrongdoers. We currently represent child victims of instant soup spills. We brought personal injury cases arising from the prescription drugs Seroquel and Zyprexa on behalf of numerous individuals and,

working with attorneys nationwide, settled the cases on favorable terms for our clients.

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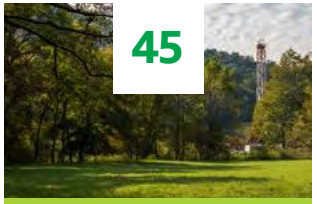
Exhibit T

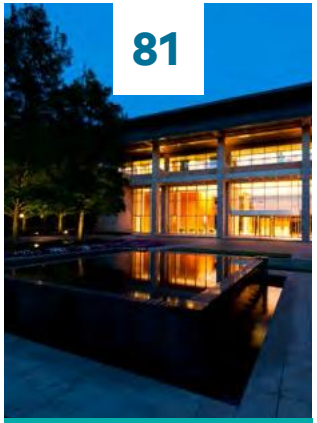
Corporate Citizenship Report

ExxonMobil

Energy lives here™

2015





In December 2015, students at the Federal Housing Estate Primary School in Lagos, Nigeria, learn about malaria prevention and proper bed net use through Grassroot Soccer's community-based program. To learn more about this program, see page 69.

Web Video

Throughout the report, additional content is available by clicking the icons shown on the left.

Managing climate change risks

Harold Johnson, lab technician at our Products Technology Center in Paulsboro, New Jersey, examines a motor oil sample. Since 2000, ExxonMobil has spent approximately $7 billion to develop lower-emission energy solutions.

Society continues to face the dual challenge of meeting energy demand to support the economic growth needed for improved living standards, while simultaneously addressing the risks posed by rising greenhouse gas emissions and climate change. While future temperature changes and the associated impacts are difficult to accurately predict, we believe the risks of climate change are real and warrant thoughtful action.

ExxonMobil supports advancement of the scientific understanding of climate change and is committed to providing affordable energy to support human progress while advancing effective solutions to address the risks of climate change. Our climate change risk management strategy includes four components: engaging on climate change policy, developing future technology, mitigating greenhouse gas emissions in our operations and developing solutions that reduce greenhouse gas emissions for our customers.

Engaging on climate change policy

Climate change is a global issue that requires the collaboration of governments, companies, consumers and other stakeholders to create global solutions. We believe countries need to work together to craft policies aimed at mitigating greenhouse gas emissions that recognize the priorities and needs of both developed and developing countries. We engage stakeholders directly and with trade associations around the world to encourage sound policy solutions for addressing these risks.

Attributes of sound climate policy

ExxonMobil believes the long-term objective of effective policy is to reduce the risks posed by climate change at minimum societal cost, in balance with other societal priorities such as poverty eradication, education, health, security and affordable energy.

We fundamentally believe that free markets, innovation and technology are essential to addressing the risks of climate change. Success in developing and deploying impactful technologies will highly depend on governments creating a policy landscape that enables innovation and competition. Policies need to be clear and guard against duplicative, overlapping and conflicting regulations, which send mixed signals to the market and impose unnecessary costs on consumers. We believe that effective policies are those that:

- Promote global participation;
- Let market prices drive the selection of solutions;
- Ensure a uniform and predictable cost of greenhouse gas emissions across the economy;
- Minimize complexity and administrative costs;
- Maximize transparency; and
- Provide flexibility for future adjustments to react to developments in climate science and the economic impacts of climate policies.

Policies based on these principles minimize overall costs to society and allow markets to help determine the most effective and commercially viable solutions.

Given the wide range of societal priorities and limited global resources, all policies, including climate change policy, must be as economically efficient as possible. ExxonMobil believes that market-based systems that impose a uniform, economy-wide cost on greenhouse gas emissions are more economically efficient policy options than mandates or standards. This is because market-based policies more effectively drive consumer behavior and technology innovation, while mandates and standards eliminate consumer choice and can perpetuate ineffective technologies.

Since 2009, ExxonMobil has held the view that a properly designed, revenue-neutral carbon tax is a more effective market-based option than a cap-and-trade approach. A carbon tax is more transparent, can be implemented in existing tax infrastructure, avoids the complexity of creating and regulating carbon markets where none exist and reduces greenhouse gas emissions price volatility, thus delivering a clearer, more consistent long-term market price signal.

Only through a sound global policy framework will the power of markets and innovation enable society to find cost-effective solutions to address the risks of climate change, while at the same time continuing to address the many other challenges the world faces.

Engaging stakeholders

Managing the risks of climate change will require increased innovation and collaboration. Therefore, ExxonMobil engages a variety of stakeholders — including policymakers, investors, consumers, non-governmental organizations (NGOs), academics and the public — on climate change issues of direct relevance to the company.

Up Close: Attributes of sound market-based policy

While market-based systems may have different designs and regional applications, we believe effective systems are those that promote global participation and are characterized as follows:

- Apply to all greenhouse gas emissions across the economy;
- Provide a uniform price for all greenhouse gas emissions;
- Apply the costs of greenhouse gas emissions to the parties most able and likely to alter behavior in response to a price signal;
- Prevent shifting of greenhouse gas emissions to unregulated jurisdictions;
- Provide for linkages with other market-based systems outside the regulated jurisdiction;
- Return revenue generated from the system back to the economy in an equitable fashion that encourages economic growth and limits regressive income effects; and
- Provide for accurate and cost-effective greenhouse gas emissions measurement, verification and reporting.

Up Close: Outcomes from COP 21

In December 2015, parties to the United Nations (UN) Framework Convention on Climate Change convened in Paris for the 21st Conference of the Parties (COP 21). COP 21 resulted in a global agreement which, for the first time, commits all parties to undertake action on climate change and report on related progress. Key commitments of the agreement include:

- "Each party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve."
- "Each party shall communicate nationally determined contributions every five years."
- "Each party shall regularly provide ... a national inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases" and "information necessary to track progress made in implementing and achieving its nationally determined contribution."

Participants at the 21st Conference of the Parties in Paris, December 2015.

ExxonMobil believes that these commitments are a positive step in achieving global participation to address climate change risks.

For many years, ExxonMobil's *Outlook for Energy* has taken into account the potential for climate policies to become increasingly stringent over time and impose rising costs on energy-related carbon dioxide emissions. Preliminary analyses of the aggregation of intended nationally determined contributions, which were submitted by governments as part of the COP 21 process, indicate a greenhouse gas emissions trajectory similar to that anticipated in our *Outlook*.

ExxonMobil continues to support and contribute to efforts to reduce greenhouse gas emissions. We believe the risks of climate change are real and warrant thoughtful action. Meeting the climate change challenge will require action from all parts of society, including governments, civil society and the private sector. We believe it is possible to address climate change risks while also meeting growing global energy demand and supporting economic development.

ExxonMobil actively advocates for responsible policies that would be effective in addressing the risks of climate change. When we encounter proposals, we offer informed data and policy analysis and engage in thoughtful debate. We have had hundreds of meetings with policymakers in the United States, the European Union and Canada to share our views on carbon pricing policy. We will continue to meet with policymakers and other stakeholders to discuss effective approaches to reduce greenhouse gas emissions. For additional information on ExxonMobil's approach to political advocacy and contributions, see page 86.

Our chairman and members of the management committee have primary responsibility for — and are actively engaged in — managing climate change risks. The board of directors receives annual in-depth briefings that cover updates on public policy, scientific and technical research, and company positions and actions related to climate change.

To drive improvement, our merit-driven employee development and compensation systems integrate performance in environmental areas, including emissions and energy efficiency.

In order to ensure that our corporate communications accurately reflect our internal policy positions, we employ a corporate-wide global climate change and greenhouse gas issue management team. As issues arise at the local, state, national and regional levels, our global team of experts evaluate and develop a company position on the issue. ExxonMobil employees also hold key leadership positions, including board of director positions, with many trade associations that engage on climate change issues, including the American Petroleum Institute (API), the International Association of Oil and Gas Producers (IOGP) and IPIECA, the global oil and gas industry association for environmental and social issues.

We believe an effective policy response to climate change requires a thorough understanding of the climate system. Our scientists have been involved in climate change research and related policy analysis for more than 30 years. This has resulted in hundreds of publicly available documents on climate-related topics, including more than 50 peer-reviewed publications.

While our long-standing and continuous involvement with climate science research, often conducted in collaboration with governmental bodies and leading universities, has advanced the company's understanding of the climate system, ExxonMobil is committed to continued engagement with the climate science community in an effort to further develop the science. ExxonMobil contributes to a wide range of academic and other organizations that research and promote dialogue on addressing climate change risks.

Peer-reviewed articles on climate research

We engage with IPIECA on a number of issues, including climate change risks. Rick Mire, environment, regulatory and socioeconomic manager, has represented ExxonMobil at IPIECA for more than a decade and has served as chair since 2012.

Experts from our organization have participated in the UN Intergovernmental Panel on Climate Change (IPCC) since its inception. Most recently, our scientists contributed to the IPCC Fifth Assessment Report in lead author, review editor and reviewer roles. For additional information on the IPCC's Fifth Assessment Report, see the adjacent Up Close. Our scientists also participated in the work of the U.S. National Academy of Sciences, including its work to review the third U.S. National Climate Assessment Report and provide advice to the U.S. Global Change Research Program.

Engaging industry

ExxonMobil recognizes the growing interest in climate change risks and understands that stakeholders seek a better understanding of the positions of the oil and gas industry, as well as how individual companies approach the management of climate change risks within their own businesses.

IPIECA was established in 1974 at the request of the United Nations Environmental Program. As an active IPIECA member, ExxonMobil engaged with member companies in advance of the December 2015 COP 21 meeting in Paris in order to help develop a common industry position on global efforts to address and mitigate climate change risks. That work culminated in The Paris Puzzle — a publication on the challenges and responses needed to address the risks of climate change.

IPIECA Paris Puzzle

Recognizing the desire of stakeholders for more accessible and clear information, in 2015 we also took a key role collaborating with IPIECA and its member companies to create a voluntary reporting framework for oil and gas companies to publish their climate change risk management approach in a simple, straightforward and transparent manner. The resulting framework, which IPIECA will pilot during 2016, covers a wide range of climate-related issues and provides a consistent reporting methodology for the oil and gas industry. This framework should enable interested stakeholders to understand an individual company's views on the issues central to addressing climate change risks.

IPIECA Climate Change Reporting Framework

Up Close: ExxonMobil and the IPCC

For more than 25 years, the IPCC has provided periodic assessments of climate change, including information on the causes and impacts as well as potential response strategies. Experts from ExxonMobil have participated in the IPCC since its inception. In October 2014, the IPCC completed its Fifth Assessment Report, which offers an update of materials related to climate science, including the socioeconomic aspects of climate change and its implications for sustainable development. Our scientists contributed to the IPCC Fifth Assessment Report in lead author, review editor and reviewer roles.

The Fifth Assessment reports high confidence in the scientific certainty of many aspects of climate change, including that atmospheric greenhouse gas concentrations are rising in response to emissions, the earth's temperature has warmed over the last century and that the risks associated with climate change will increase with the magnitude of atmospheric greenhouse gas concentration and temperature increases. The assessment notes that the ability to forecast the magnitude and pattern of future climate change remains less certain and confidence declines when moving from a global to local scale.

While the current scientific understanding of climate change leaves some unanswered questions, it is clear that the risks are real and warrant thoughtful action. ExxonMobil employs a risk management strategy and continually strives to improve our understanding of the impacts of climate change. As part of our *Outlook for Energy* analysis, we project an energy-related carbon dioxide (CO_2) emissions profile through 2040. This can be compared with the energy-related CO_2 emissions profiles from various scenarios outlined by the IPCC. When we do this, our *Outlook* emissions profile approximates the IPCC's intermediate Representative Concentration Pathways 4.5 emissions profile in shape, but is slightly under it in magnitude.

IPCC's Fifth Assessment Report

Developing future technology

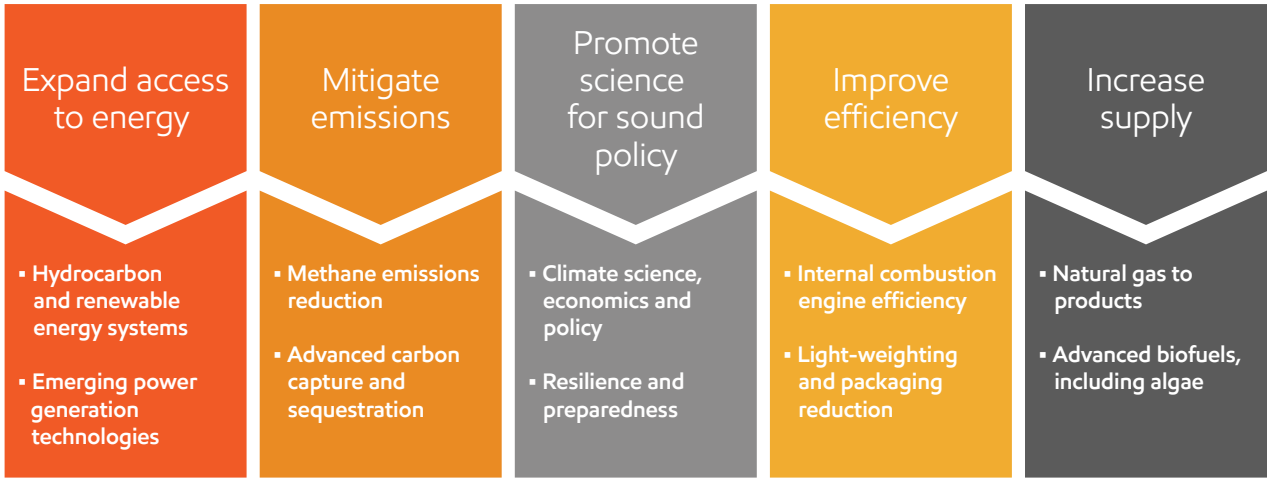
As society transitions to lower greenhouse gas emission energy solutions, technological advancements that change the way we produce and use energy will be instrumental in providing the global economy with the energy it needs while reducing greenhouse gas emissions. Recognizing the limitations associated with most existing low greenhouse gas emissions energy technologies, particularly in delivering the necessary economy and scale, we are conducting fundamental research to develop low greenhouse gas emission energy solutions that have the potential to be economically feasible without subsidies, standards or mandates. ExxonMobil is pioneering scientific research to discover innovative approaches to enhance existing and develop next-generation energy sources.

ExxonMobil's Emerging Technologies program brings together executives, scientists and engineers from across ExxonMobil's businesses to identify and evaluate technology research opportunities with a long-term strategic focus. The Emerging Technologies team seeks to understand a wide range of technology options and how they may impact the global energy system in the near term and as far as 50 years into the future. Our evaluation extends well beyond our base business and near-term focus. If a technology could have a material effect on the future of energy, we insist on knowing about it and understanding the related science. Understanding the fundamental science serves as a basis for our broader research efforts and may lead to further technology development aimed at practical application, such as our work on biofuels. Additionally, this awareness informs our internal analysis of the global energy landscape as reflected and encapsulated in our annual *Outlook for Energy*.

The Outlook for Energy: A View to 2040

At the center of our research is ExxonMobil's Corporate Strategic Research laboratory, a fundamental research institution with approximately 150 Ph.D. scientists and engineers focused on addressing the company's long-range science needs. The laboratory's scientists are internationally recognized experts in their field. Our research portfolio, as illustrated in the graphic above, includes a broad array of programs, including biofuels, carbon capture and sequestration, alternative energy and climate science.

ExxonMobil's approach to developing future technology



"ExxonMobil is a leader in its commitment to fundamental science and has a constancy of purpose when looking at emerging energy technologies. As part of our commitment, we continue to widen our research aperture through collaborations with academics and other third parties to better enable us to identify potential breakthroughs in lower-emission technologies."

Vijay Swarup
Vice president, research and development

In addition to in-house research, the Corporate Strategic Research laboratory conducts strategic research with leading universities around the world. For example, in 2014, ExxonMobil signed an agreement to join the Massachusetts Institute of Technology Energy Initiative, a collaboration aimed at working to advance and explore the future of energy. ExxonMobil was also a founding member of the Global Climate and Energy Project at Stanford University, which seeks to develop fundamental, game-changing scientific breakthroughs that could lead to lower greenhouse gas emissions and a less carbon-intensive global energy system. Other university collaborations cover a wide range of scientific topics, from understanding the impacts of black carbon and aerosols at the University of California, Riverside to the fundamentals of biomass pyrolysis used to make biofuels at Iowa State University.

Advanced biofuels

ExxonMobil funds a broad portfolio of biofuels research programs including ongoing efforts to develop algae-based biofuels, as well as programs for converting non-food based feedstocks, such as whole cellulosic biomass, algae-based feedstocks and cellulose-derived sugars, into advanced biofuels. We believe that additional fundamental technology improvements and scientific breakthroughs are still necessary in both biomass optimization and the processing of biomass into fuels. Specifically, scientific breakthroughs are needed to ensure that advanced biofuels can be scaled up economically and produced with the desired environmental benefit of lower life cycle greenhouse gas emissions.

Up Close: Advanced biofuels partnership with Michigan State University

ExxonMobil is a leader in funding and conducting research on advanced biofuels. In 2015, ExxonMobil and Michigan State University (MSU) launched a partnership to advance biofuel research by developing the basic science required to progress algae-based fuels and bio-products.

Research has shown that algae photosynthesis can be highly efficient under optimal conditions in the laboratory but that this efficiency drops under realistic growth conditions. The partnership seeks to understand why some strains of algae are more efficient than others by using advanced technologies to study the photosynthetic processes of many cultures under different conditions.

The objective is to eventually process algae bio-oils in ExxonMobil refineries to supplement crude oil as the raw material to manufacture gasoline, diesel, aviation fuels and marine fuels. We are also researching potential applications for chemicals and lubricants.

Algae biofuel research and development is a long-term endeavor that could take decades to commercialize at scale. In this partnership, we are working to build on our significant progress since beginning this work in 2009.

"Nature has provided us with a great potential for improvement, and there are many strains of algae that have adapted to work in different environments. We want to determine how they do this and which genes are responsible. Then, we can potentially combine traits to make strains that are more efficient under harsh conditions."

David Kramer

Photosynthesis and bioenergetics professor, MSU-Department of Energy Plant and Research Laboratory

Our advanced biofuels research includes joint research collaborations with Synthetic Genomics Inc., Renewable Energy Group, the Colorado School of Mines, Michigan State University, Iowa State University, Northwestern University and the University of Wisconsin. For additional information on biofuel initiatives in 2015, see the adjacent Up Close.

Energy investment in advanced biofuels

Carbon capture and sequestration

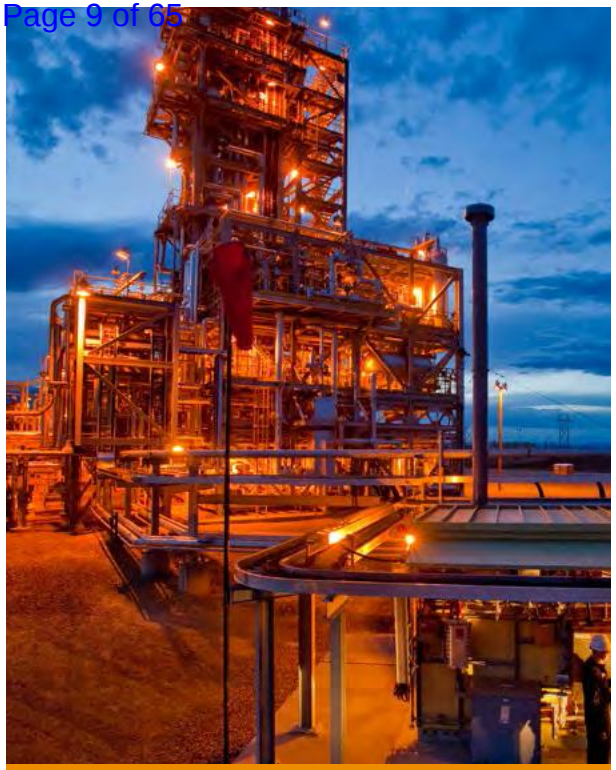
Carbon capture and sequestration (CCS) is the process by which CO_2 gas that would otherwise be released into the atmosphere is captured, compressed and injected into underground geologic formations for permanent storage. With a working interest in approximately one-third of the world's total CCS capacity, ExxonMobil is a leader in one of the most important next-generation low-carbon technologies. In 2015, we captured 6.9 million metric tons of CO_2 for sequestration.

ExxonMobil believes the greatest opportunity for future large-scale deployment of CCS will be in the natural gas-fired power generation sector. While CCS technology can be applied to coal-fired power generation, the cost to capture CO_2 is about twice that of natural gas power generation. In addition, because coal-fired power generation creates about twice as much CO_2 per unit of electricity generated, the geological storage space required to sequester the CO_2 produced from coal-fired generation is about twice that associated with gas-fired generation.

ExxonMobil is conducting proprietary, fundamental research to develop breakthrough carbon capture technologies that have the potential to be economically feasible without government subsidies, standards or mandates.

Environmental life cycle assessments

Every product has the potential to impact the environment. These impacts can be associated with use of the product itself, the manufacturing process or the acquisition of raw materials used to make the product. As a result, a holistic estimate of a product's environmental impact should reflect its entire life cycle.



Our LaBarge gas plant in Wyoming contributes to the total carbon dioxide ExxonMobil captures for sequestration each year.

To help direct our research efforts, we use in-house experts and tools to conduct environmental life cycle assessments of emerging products and activities. In doing so, we are able to assess which technologies have the potential to deliver the game-changing results that will be needed to transition the energy system to lower-emissions solutions.

ExxonMobil researchers also collaborate with researchers at national laboratories and universities around the globe to advance the science of life cycle assessments. In recent years, we have developed new approaches for quantifying environmental impacts associated with energy systems, and published our findings in prestigious peer-reviewed journals. Peer-review and collaboration with external scientists enhance dialogue with the academic research community and bring external expertise and perspective to ExxonMobil life cycle assessments, supporting sound science both within the company and in the greater scientific community.

Mitigating greenhouse gas emissions in our operations

As we seek to increase production of oil and natural gas to meet growing global energy demand, we are committed to continuing to take actions to mitigate greenhouse gas emissions within our operations.

ExxonMobil has a robust set of processes designed to improve efficiency, reduce emissions and contribute to effective long-term solutions to manage climate change risks. These processes include, where appropriate, setting tailored objectives at the business, site and equipment levels, and then stewarding progress toward meeting those objectives. Based on decades of experience, ExxonMobil believes this rigorous bottom-up approach is a more effective and meaningful way to drive efficiency improvement and greenhouse gas emissions reduction than simply setting high-level corporate targets. We also believe that continuing to use this approach will yield further improvements in all sectors of our business.

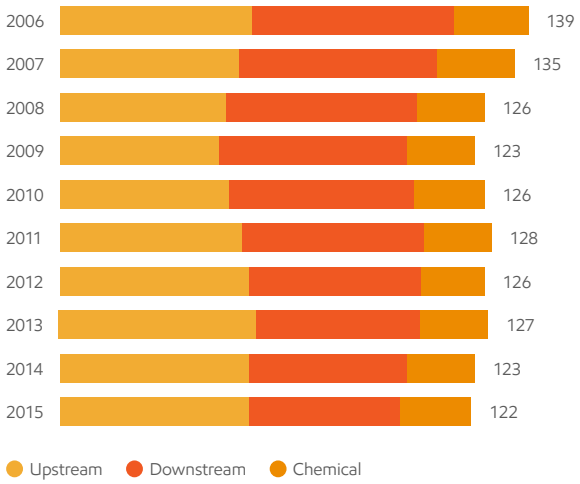
In the near term, we are working to increase energy efficiency while reducing flaring, venting and fugitive emissions in our operations. In the medium term, we are deploying proven technologies such as cogeneration and carbon capture and sequestration where technically and economically feasible. Longer term, we are conducting and supporting research to develop breakthrough, game-changing technologies. Since 2000, ExxonMobil has spent approximately $7 billion to develop lower-emission energy solutions.

In 2015, ExxonMobil's net equity greenhouse gas emissions were 122 million CO_2-equivalent metric tons. Relative to our 2014 performance, our 2015 emissions decreased by approximately 1 million CO_2-equivalent metric tons. This decrease was primarily driven by energy efficiency improvement and asset divestment.

2015 CDP (Carbon Disclosure Project) response

Greenhouse gas emissions (net)[1]

Net equity, CO_2-equivalent emissions
Millions of metric tons

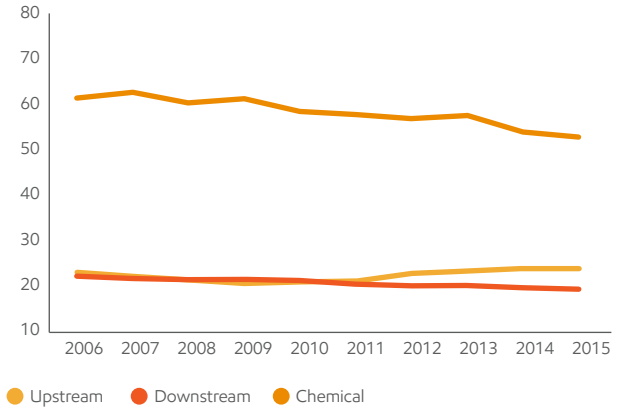


In 2015, ExxonMobil's net equity greenhouse gas emissions were 122 million CO_2-equivalent metric tons. Relative to our 2014 performance, our 2015 emissions decreased by approximately 1 million CO_2-equivalent metric tons.

[1]Our calculations are based on the guidance provided in API's Compendium of Greenhouse Gas Emission Estimation Methodologies for the Oil and Gas Industry and IPIECA's Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions.

Greenhouse gas emissions (normalized)

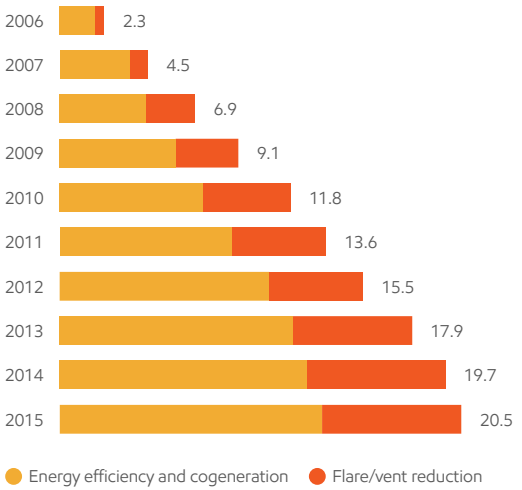
Net equity, CO_2-equivalent emissions
Metric tons per 100 metric tons of throughput or production



Through our commitment to energy efficiency, application of structured processes and continued use of a bottom-up approach, we continue to yield industry-leading results. For example, normalized greenhouse gas emissions from our Downstream business totaled 18.9 metric tons per 100 metric tons of throughput or production in 2015. This represents an improvement of 13 percent compared with our 2006 performance.

Greenhouse gas emissions avoided from ExxonMobil actions[2]

Net equity, CO_2-equivalent emissions
Millions of metric tons



In 2015, greenhouse gas emissions avoided from ExxonMobil actions were 20.5 million metric tons, cumulative since 2006. This represents an additional reduction of 0.8 million metric tons compared with our 2014 performance.

[2]Cumulative since 2006.

Emissions reduction

>$3.8 Billion

invested since 2000 at our Upstream facilities around the world on emission reduction efforts, including energy efficiency and flare mitigation

>$400 Million

invested over the past 15 years at our refining facilities around the world to reduce greenhouse gas emissions

>$2 Billion

in support of Upstream and Downstream cogeneration facilities since 2001 to more efficiently produce electricity and reduce greenhouse gas emissions

>$200 Million

in capital expenditures at global Chemical facilities since 2004 to reduce greenhouse gas emissions

Energy efficiency

In 2015, energy used in our operations totaled 1.7 billion gigajoules. Energy consumed in our operations generates more than 80 percent of our direct greenhouse gas emissions and is one of our largest operating costs. As such, we have focused on energy efficiency for several decades. Since 2000, we have used our Global Energy Management System in the Downstream and Chemical businesses, and our Production Operations Energy Management System in our Upstream businesses to identify and act on energy savings opportunities.

Through our commitment to energy efficiency, application of structured processes and continued use of a bottom-up approach, we continue to yield industry-leading results. For example, in the 2010, 2012 and 2014 Refining Industry Surveys,[3] ExxonMobil's global refining operations achieved first quartile energy efficiency performance.

Flaring

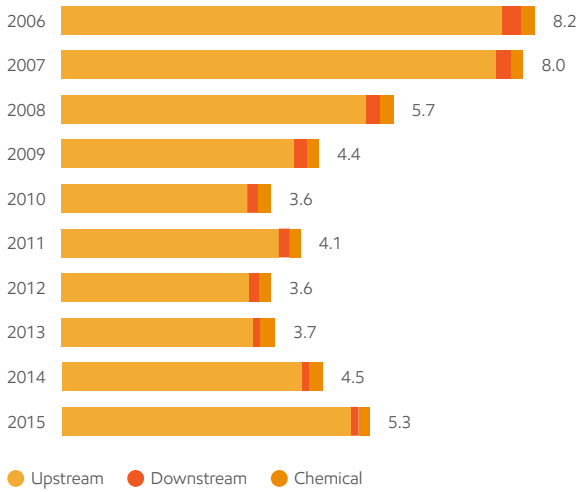
In 2015, flaring volume from our combined Upstream, Downstream and Chemical operations totaled 5.3 million metric tons. This represents an increase of 0.8 million metric tons compared with our 2014 performance.

The increase in flaring in 2015 was primarily due to operations in Angola, where a third-party-operated liquefied natural gas (LNG) plant was not operating. These increases were partially offset by flaring reductions resulting from the completion of commissioning work at our Papua New Guinea LNG plant and operational improvements at the Usan production field in Nigeria.

ExxonMobil is a charter member of the *Global Gas Flaring Reduction Partnership*. In addition, we put in place our own parameters, the *Upstream Flaring and Venting Reduction Environmental Standard for Projects*, in 2005. Accordingly, our goal is to responsibly avoid routine flaring in new Upstream projects and reduce "legacy" flaring in our existing operations.

Hydrocarbon flaring

Millions of metric tons



In 2015, flaring volume from our combined Upstream, Downstream and Chemical operations totaled 5.3 million metric tons. This represents an increase of 0.8 million metric tons compared with our 2014 performance.

For example, our joint venture operations in Qatar have recently begun using a jetty boil-off gas (JBOG) recovery facility to recover the natural gas that was previously flared during LNG vessel loading at the marine berths located at the Ras Laffan Port. Approximately 1 percent of the LNG loaded onto the ships evaporates due to the difference in temperature between the LNG and the ship tank. The JBOG recovery facility collects the boil-off gas and returns it to the LNG plants to be used as fuel or converted back into LNG. During one year of operation, the JBOG facility has recovered more than 500,000 metric tons of gas and reduced LNG vessel loading-related flaring by around 90 percent.

[3]The Solomon Survey provides a global benchmarking assessment of the refining industry and is conducted every two years.

Paula Byrum inspects equipment at our XTO Energy operations site near Herbert Springs, Arkansas.

Up Close: Mitigating methane emissions at XTO Energy

XTO Energy manages methane emissions as a matter of safety and environmental responsibility. Responsible methane containment practices are applied during drilling, completion and production operations to minimize methane emissions. We manage emissions through a mix of voluntary and regulatory actions, such as implementing leak detection and repair programs, reducing oil and gas completion emissions and targeting replacement of high-bleed pneumatics with lower-emitting devices.

After drilling and completion of a new well, our workers prepare the production equipment for decades of operation. A key part of these preparations is to ensure that the natural gas product is contained by the production equipment. We utilize optical gas imaging cameras to locate equipment leaks that would otherwise be invisible, which allows us to detect leaks and make repairs. This attention to detail is important to promote safety and environmental performance.

There is a growing interest within the scientific and policy communities on human-related methane emissions. In the United States, we are working with federal and state governments and within industry to ensure that regulations aimed at reducing emissions of methane and volatile organic compounds sufficiently support long-term operations, achieve emission reduction objectives and provide flexibility for technology.

We continue to seek greater understanding of the magnitude and characteristics of oil and gas industry-related methane emissions. XTO Energy participated in studies conducted by the University of Texas and Environmental Defense Fund which quantified the methane leakage rate in the United States from Upstream gas production activities at 0.4 percent of the total gas produced. The results of this study helped validate Environmental Protection Agency estimates. We are active in ongoing methane research including participating in a methane measurement reconciliation study with the Department of Energy's National Renewable Energy Laboratory to close the knowledge gap between methane measured at ground sources and methane measured from the air. We are also working with Stanford University on its new Natural Gas Initiative, which will focus on methane measurement and monitoring technologies.

Venting and fugitive emissions

Our venting and fugitive emissions in 2015 totaled 6 million CO_2-equivalent metric tons, which is essentially flat relative to our 2014 performance. While venting and fugitive emissions, most of which are methane, represent approximately 5 percent of our direct greenhouse gas emissions, we recognize the importance of reducing these emissions. We continue to look for cost-effective ways to reduce methane and other hydrocarbon emissions in our operations, such as replacing high-bleed pneumatic devices with lower-emission technology and conducting green well completions in targeted Upstream operations. For more information on how XTO Energy manages methane emissions, see the adjacent Up Close.

Cogeneration

Cogeneration technology captures heat generated from the production of electricity for use in production, refining and chemical processing operations. Due to its inherent energy efficiency, the use of cogeneration leads to reduced greenhouse gas emissions. Our cogeneration facilities alone enable the avoidance of approximately 6 million metric tons per year of greenhouse gas emissions.

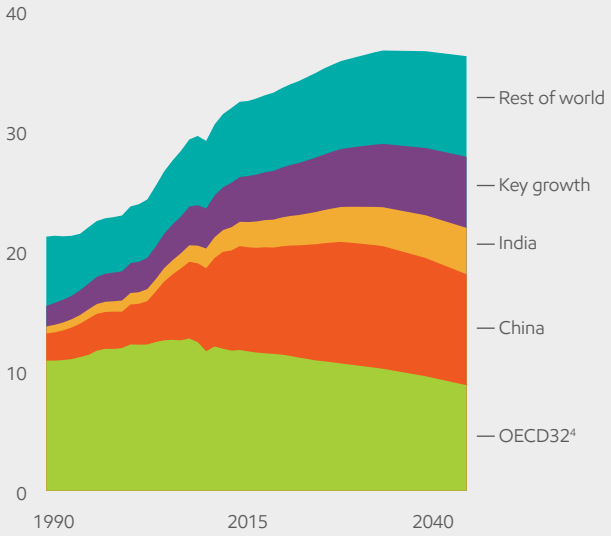
We have interests in approximately 5,500 megawatts of cogeneration capacity in more than 100 installations at more than 30 locations around the world. This capacity is equivalent to the annual energy needed to power 2.5 million U.S. homes. Over the past decade, we have added more than 1,000 megawatts of cogeneration capacity and continue to develop additional investment opportunities.

For example, ExxonMobil began the construction of a new 84-megawatt cogeneration facility at our Singapore refinery's Jurong site. When this facility is completed in 2017, ExxonMobil will have more than 440 megawatts of cogeneration capacity in Singapore, enabling our integrated refining and petrochemical complex to meet all its power needs.

The Kizomba B platform located offshore Angola.

Energy-related CO_2 emissions

Billion metric tons



[4]The Organization for Economic Cooperation and Development. Refer to the Organization for Economic Cooperation and Development website (*oecd.org*) for a listing of its members.

Up Close: Managing the business risks of climate change

By 2040, the world's population is projected to reach 9 billion — up from about 7.2 billion today — and global GDP will have more than doubled. As a result, we see global energy demand rising by about 25 percent from 2014 to 2040. In order to meet this demand, we believe all economic energy sources, including our existing hydrocarbon reserves, will be needed. We also believe that the transition of the global energy system to lower-emissions sources will take many decades due to its enormous scale, capital intensity and complexity. As such, we believe that none of our proven hydrocarbon reserves are, or will become, stranded.

Energy and carbon — managing the risks

ExxonMobil's long-range annual forecast, *The Outlook for Energy*, examines energy supply and demand trends for approximately 100 countries, 15 demand sectors and 20 different energy types. The *Outlook* forms the foundation for the company's business strategies and helps guide our investment decisions. In response to projected increases in global fuel and electricity demand, our 2016 *Outlook* estimates that global energy-related CO_2 emissions will peak around 2030 and then begin to decline. A host of trends contribute to this downturn — including slowing population growth, maturing economies and a shift to cleaner fuels like natural gas and renewables — some voluntary and some the result of policy.

ExxonMobil addresses the potential for future climate change policy, including the potential for restrictions on emissions, by estimating a proxy cost of carbon. This cost, which in some geographies may approach $80 per ton by 2040, has been included in our *Outlook* for several years. This approach seeks to reflect potential policies governments may employ related to the exploration, development, production, transportation or use of carbon-based fuels. We believe our view on the potential for future policy action is realistic and by no means represents a "business-as-usual" case. We require all of our business lines to include, where appropriate, an estimate of greenhouse gas-related emissions costs in their economics when seeking funding for capital investments.

We evaluate potential investments and projects using a wide range of economic conditions and commodity prices. We apply prudent and substantial margins in our planning assumptions to help ensure competitive returns over a wide range of market conditions. We also financially stress test our investment opportunities, which provides an added margin against uncertainties, such as those related to technology development, costs, geopolitics, availability of required materials, services and labor. Stress testing further enables us to consider a wide range of market environments in our planning and investment process.

Exhibit U

THE WASHINGTON FREE BEACON

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Memo Shows Secret Coordination Effort Against ExxonMobil by Climate Activists, Rockefeller Fund

Several states have launched investigations into the company

SHARE TWEET EMAIL

BY: Alana Goodman Follow @alanagoodman

April 14, 2016 5:00 pm

A small coalition of prominent climate change activists and political operatives huddled on Jan. 8 for a closed-door meeting at the Rockefeller Family Fund in Manhattan. Their agenda: taking down oil giant ExxonMobil through a coordinated campaign of legal action, divestment efforts, and political pressure.

The meeting—which included top offcials at GreenPeace, the Working Families Party, and the

Rockefeller Family Fund—took place as climate change groups have pushed for a federal criminal probe of ExxonMobil's environmental impact, similar to the 1990s racketeering case against Big Tobacco.

A copy of the meeting's agenda, obtained by the *Washington Free Beacon*, provides a rare glimpse inside the anti-ExxonMobil crusade, which has already spurred investigations into the oil giant by Democratic attorneys general in several states.

According to the memo, the coalition's goals are to "delegitimize [ExxonMobil] as a political actor," "force offcials to disassociate themselves from Exxon," and "drive divestment from Exxon." The memo also proposed "creating scandal" by using lawsuits and state prosecutors to obtain internal documents from ExxonMobil through judicial discovery.

The secret meeting was frst reported by the *Wall Street Journal* on Wednesday, but the group's agenda was not posted in full until now.

The agenda was drafted by Kenny Bruno, an activist with the New Venture Fund. Bruno emailed the memo to a small group of around a dozen attendees, including Naomi Ages at GreenPeace; Dan Cantor, executive director of the New York Working Families Party; Jamie Henn, co-founder at 350.org; and Rob Weissman, president at Public Citizen.

According to the agenda, the meeting would be opened by Lee Wasserman, director of the Rockefeller Family Fund. The organization funds many environmental groups and hosted the meeting at its Manhattan offce.

“If you are receiving this message then we believe you are attending the meeting this coming Friday Jan 8 regarding Exxon,” wrote Bruno. “The meeting will take place at: Rockefeller Family Fund.”

The email included a “DRAFT Agenda” for “Exxon: Revelations & Opportunities.”

Under a section headlined “goals,” the agenda listed: “To establish in the public’s mind that Exxon is a corrupt institution”; “To delegitimize them as a political actor; and “To drive Exxon & climate into center of 2016 election.”

The agenda also outlined “the main avenues for legal actions & related campaigns,” including state attorneys general, the Department of Justice, international litigation, and tort lawsuits.

“Which of these has the best prospects for successful action? For getting discovery? For creating scandal?” said the memo.

The Rockefeller Family Fund did not immediately return request for comment.

California announced an investigation into ExxonMobil’s statements on climate change in January, shortly after the meeting took place.

Several other states attorneys general, including New York’s Eric Schneiderman and Massachusetts’ Maura Healey, have also launched investigations into whether ExxonMobil broke the law by allegedly covering up internal conclusions on climate change and misleading investors.

ExxonMobil fled court papers on W ednesday challenging another investigation by the U.S. Virgin Island’s attorney general’s offce, the *Wall Street Journal* reported.

In the fling, the oil company denounced the “chilling ef fect of this inquiry, which discriminates based on viewpoint to target one side of an ongoing policy debate” and “strikes at protected speech at the core of the First Amendment.”

Alana Goodman Email | Full Bio | RSS
Alana Goodman is a staff writer for the Washington Free Beacon. Prior to joining the Beacon, she was assistant online editor at Commentary. She has written for the Weekly Standard, the New York Post and the Washington Examiner. Goodman graduated from the University of Massachusetts in 2010, and lives in Washington, D.C. Her Twitter handle is @alanagoodman. Her email address is goodman@freebeacon.com.

Exhibit V

CLIMATE CHANGE COALITION COMMON INTEREST AGREEMENT

This Common Interest Agreement ("Agreement") is entered into by the undersigned Attorneys General of the States, Commonwealths, and Territories (the "Parties") who are interested in advancing their common legal interests in limiting climate change and ensuring the dissemination of accurate information about climate change. The Parties mutually agree:

1. Common Legal Interests. The Parties share common legal interests with respect to the following topics: (i) potentially taking legal actions to compel or defend federal measures to limit greenhouse gas emissions, (ii) potentially conducting investigations of representations made by companies to investors, consumers and the public regarding fossil fuels, renewable energy and climate change, (iii) potentially conducting investigations of possible illegal conduct to limit or delay the implementation and deployment of renewable energy technology, (iv) potentially taking legal action to obtain compliance with federal and state laws governing the construction and operation of fossil fuel and renewable energy infrastructure, or (v) contemplating undertaking one or more of these legal actions, including litigation ("Matters of Common Interest").

2. Shared Information. It is in the Parties' individual and common interests to share documents, mental impressions, strategies, and other information regarding the Matters of Common Interest and any related investigations and litigation ("Shared Information"). Shared Information shall include (1) information shared in organizing a meeting of the Parties on March 29, 2016, (2) information shared at and after the March 29 meeting, pursuant to an oral common interest agreement into which the Parties entered at the meeting and renewed on April 12, 2016, and (3) information shared after the execution of this Agreement.

3. Legends on Documents. To avoid misunderstandings or inadvertent disclosure, all documents exchanged pursuant to this Agreement should bear the legend "Confidential – Protected by Common Interest Privilege" or words to that effect. However, the inadvertent failure to include such a legend shall not waive any privilege or protection available under this Agreement or otherwise. In addition, any Party may, where appropriate, also label documents exchanged pursuant to this Agreement with other appropriate legends, such as, for example, "Attorney-Client Privileged" or "Attorney Work Product." Oral communications among the Parties shall be deemed confidential and protected under this Agreement when discussing Matters of Common Interest.

4. Non-Waiver of Privileges. The exchange of Shared Information among Parties—including among Parties' staff and outside advisors—does not diminish in any way the privileged and confidential nature of such information. The Parties retain all applicable privileges and claims to confidentiality, including the attorney client privilege, work product privilege, common interest privilege, law enforcement privilege, deliberative process privilege and exemptions from disclosure under any public records laws that may be asserted to protect against disclosure of Shared Information to non-Parties (hereinafter collectively referred to as "Privileges").

5. Nondisclosure. Shared Information shall only be disclosed to: (i) Parties; (ii) employees or agents of the Parties, including experts or expert witnesses; (iii) government officials involved with the enforcement of antitrust, environmental, consumer protection, or securities laws who have agreed in writing to abide by the confidentiality restrictions of this Agreement; (iv) criminal enforcement authorities; (v) other persons, provided that all Parties consent in advance; and (vi) other persons as provided in paragraph 6. A Party who provides Shared Information may also impose additional conditions on the disclosure of that Shared Information. Nothing in this Agreement prevents a Party from using the Shared Information for law enforcement purposes, criminal or civil, including presentation at pre-trial and trial-related proceedings, to the extent that such presentation does not (i) conflict with other agreements that the Party has entered into, (ii) interfere with the preservation of the Privileges, or (iii) conflict with court orders and applicable law.

6. Notice of Potential Disclosure. The Parties agree and acknowledge that each Party is subject to applicable freedom of information or public records laws, and nothing in this Agreement is intended to alter or limit the disclosure requirements of such laws. If any Shared Information is demanded under a freedom of information or public records law or is subject to any form of compulsory process in any proceeding ("Request"), the Party receiving the Request shall: (i) immediately notify all other Parties (or their designees) in writing; (ii) cooperate with any Party in the course of responding to the Request; and (iii) refuse to disclose any Shared Information unless required by law.

7. Inadvertent Disclosure. If a Party discloses Shared Information to a person not entitled to receive such information under this Agreement, the disclosure shall be deemed to be inadvertent and unintentional and shall not be construed as a waiver of any Party's right under law or this Agreement. Any Party may seek additional relief as may be authorized by law.

8. Independently Obtained Information. Provided that no disclosure is made of Shared Information obtained pursuant to this Agreement, nothing in this Agreement shall preclude a Party from (a) pursuing independently any subject matter, including subjects reflected in Shared Information obtained by or subject to this Agreement or (b) using or disclosing any information, documents, investigations, or any other materials independently obtained or developed by such Party.

9. Related Litigation. The Parties continue to be bound by this Agreement in any litigation or other proceeding that arises out of the Matters of Common Interest.

10. Parties to the Agreement. This Agreement may be executed in counterparts. All potential Parties must sign for their participation to become effective.

11. Withdrawal. A Party may withdraw from this Agreement upon thirty days written notice to all other Parties. Withdrawal shall not terminate, or relieve the withdrawing Party of any obligation under this Agreement regarding Shared Information received by the withdrawing Party before the effective date of the withdrawal.

12. Modification. This writing is the complete Agreement between the Parties, and any modifications must be approved in writing by all Parties.

Dated: May 18, 2016

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Dated: May 2, 2016

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Dated: May 2, 2016

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Dated: May 10, 2016

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Signature: Karen D. Olson Date: 5/16/16

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Dated: April 29, 2016

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Dated: May 9, 2016

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Dated: April 29, 2016

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Dated: MAY 1, 2016

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Exhibit W

NEWS RELEASE

Luther Strange

Alabama Attorney General

FOR IMMEDIATE RELEASE
May 16, 2016

For More Information, contact:
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ALABAMA JOINS INTERVENTION IN CASE TO PROTECT FIRST AMENDMENT RIGHT OF BUSINESSES FROM GOVERNMENT THREATS OF CRIMINAL PROSECUTION

(MONTGOMERY) – Attorney General Luther Strange announced that Alabama has joined Texas in requesting that a Texas judge rule against an unconstitutional investigation conducted by the Attorney General of the Virgin Islands against ExxonMobil for its views on climate change.

"The fundamental right of freedom of speech is under assault by an Attorney General pursuing an agenda against a business that doesn't share his views on the environment," said Attorney General Strange. "The Attorney General of the Virgin Islands, an American Territory, is abusing the power of his government office to punish and intimidate a company for its climate change views which run counter to that of his own.

"This is more than just a free speech case. It is a battle over whether a government official has a right to launch a criminal investigation against anyone who doesn't share his radical views," Attorney General Strange added. "In this case an attorney general has subpoenaed ExxonMobil to provide some 40 years' worth of records so that it can conduct a witch hunt against the company for its views on the environment. This is a very disturbing trend that must be stopped and I am pleased to join with Texas Attorney General Ken Paxton in filing an intervention plea in support of the First Amendment."

The intervention plea was filed Monday in the case of *ExxonMobil Corporation v. Claude Earl Walker, Attorney General of the United States Virgin Islands*.

A copy of the intervention plea is attached.

--30--

NO. 017-284890-16

EXXON MOBIL CORPORATION	§	IN THE DISTRICT COURT OF
	§	
Plaintiff,	§	
	§	
v.	§	
	§	
CLAUDE EARL WALKER, Attorney General of the United States Virgin Islands, in his official capacity, COHEN MILSTEIN SELLERS & TOLL, PLLC, in its official capacity as designee, and LINDA SINGER, in her official capacity as designee,	§	TARRANT COUNTY, TEXAS
	§	
Defendants.	§	17TH JUDICIAL DISTRICT

PLEA IN INTERVENTION OF THE STATES OF TEXAS AND ALABAMA

The States of Texas and Alabama intervene under Rule 60 of the Texas Rules of Civil Procedure to protect the due process rights of their residents.

I. Background.

At a recent gathering on climate change in New York City, Claude Earl Walker, Attorney General of the United States Virgin Islands, announced an investigation by his office ("Investigation") into a company whose product he claims "is destroying this earth." Pl. Compl. Ex. B at 16. A week earlier, ExxonMobil Corporation, a New Jersey corporation with principal offices in Texas, was served with a subpoena seeking documents responsive to alleged violations of the penal code of the Virgin Islands. *Id*. at ¶ 20, Ex. A at 1. Though General Walker signed the subpoena, it arrived in an envelope postmarked in Washington, D.C, with a return address for Cohen Milstein, a law firm that

describes itself as a "pioneer in plaintiff class action lawsuits" and "the most effective law firm in the United States for lawsuits with a strong social and political component." *Id.* at ¶¶ 4, 20. ExxonMobil now seeks to quash the subpoena in Texas state court, asserting, *inter alia*, that the Investigation violates the First Amendment and that the participation of Cohen Milstein, allegedly on a contingency fee basis, is an unconstitutional delegation of prosecutorial power. *See generally id.*

The intervenors are States whose sovereign power and investigative and prosecutorial authority are implicated by the issues and tactics raised herein. General Walker's Investigation appears to be driven by ideology, and not law, as demonstrated not only by his collusion with Cohen Milstein, but also by his request for almost four decades worth of material from a company with no business operations, employees, or assets in the Virgin Islands. *Id.* at ¶ 7. And it is disconcerting that the apparent pilot of the discovery expedition is a private law firm that could take home a percentage of penalties (if assessed) available only to government prosecutors. We agree with ExxonMobil that serious jurisdictional concerns exist, but to protect the fundamental right of impartiality in criminal and quasi-criminal investigations, we intervene.

II. Standard for Intervention.

Rule of Civil Procedure 60 provides that "[a]ny party may intervene by filing a pleading, subject to being stricken out by the court for sufficient cause on the motion of any party." TEX. R. CIV. P. 60. "Rule 60 . . . provides . . . that

any party may intervene" in litigation in which they have a sufficient interest. *Mendez v. Brewer*, 626 S.W.2d 498, 499 (Tex. 1982). "A party has a justiciable interest in a lawsuit, and thus a right to intervene, when his interests will be affected by the litigation." *Jabri v. Alsayyed*, 145 S.W.3d 660, 672 (Tex. App.—Houston [14th Dist.] 2004, no pet.) (citing *Law Offices of Windle Turley v. Ghiasinejad*, 109 S.W.3d 68, 71 (Tex. App.—Fort Worth 2003, no pet.)). And an intervenor is not required to secure a court's permission to intervene in a cause of action or prove that it has standing. *Guar. Fed. Sav. Bank v. Horseshoe Operating Co.*, 793 S.W.2d 652, 657 (Tex. 1990).

There is no pre-judgment deadline for intervention. *Tex. Mut. Ins. Co. v. Ledbetter*, 251 S.W.3d 31, 36 (Tex. 2008). Texas courts recognize an "expansive" intervention doctrine in which a plea in intervention is untimely only if it is "filed after judgment." *State v. Naylor*, 466 S.W.3d 783, 788 (Tex. 2015) (quoting *First Alief Bank v. White*, 682 S.W.2d 251, 252 (Tex. 1984)). There is no final judgment in this case, thus making the States' intervention timely.

III. Intervenors Have an Interest in Ensuring Constitutional Safeguards for Prosecutions of its Residents.

The alleged use of contingency fees in this case raises serious due process considerations that the intervenors have an interest in protecting.

To begin, government attorneys have a constitutional duty to act impartially in the execution of their office. The Supreme Court has explained that attorneys who represent the public do not represent an ordinary party in litigation, but "a sovereignty whose obligation to govern impartially is as

compelling as its obligation to govern at all." *Berger v. United States*, 295 U.S. 78, 88, (1935).

Contingency fee arrangements cut against the duty of impartiality by giving the attorney that represents the government a financial stake in the outcome. Thus, the use of contingency fees is highly suspect in criminal cases and, more generally, when fundamental rights are at stake. *State v. Lead Indus., Ass'n, Inc.*, 951 A.2d 428, 476 n. 48 (R.I. 2008) (doubting that contingent fees would ever be appropriate in a criminal case); *Int'l Paper Co. v. Harris Cty.*, 445 S.W.3d 379, 393 (Tex. App.—Houston [1st Dist.] 2013, no pet.) (contingency fees are impermissible in cases implicating fundamental rights).

Here, the Investigation appears to be a punitive enforcement action, as all of the statutes that ExxonMobil purportedly violated are found in the criminal code of the Virgin Islands. 14 V.I.C. §§ 551, 605, 834. In addition, ExxonMobil asserts a First Amendment interest to be free from viewpoint discrimination. Intervenors, in sum, have a strong interest in ensuring that contingency fee arrangements are not used in criminal and quasi criminal cases where a multitude of fundamental rights, including speech, lie in the balance.

IV. Conclusion and Prayer for Relief.

The States identified herein, Texas and Alabama, by and through this intervention, request notice and appearance, and the opportunity to defend the rule of law before this Court.

Respectfully submitted,

LUTHER STRANGE Attorney General of Alabama 501 Washington Ave. Montgomery, Alabama 36104	KEN PAXTON Attorney General of Texas JEFFREY C. MATEER First Assistant Attorney General BRANTLEY STARR Deputy Attorney General for Legal Counsel AUSTIN R. NIMOCKS Associate Deputy Attorney General for Special Litigation /s/ Austin R. Nimocks AUSTIN R. NIMOCKS Texas Bar No. 24002695 Special Litigation Division P.O. Box 12548, Mail Code 001 Austin, Texas 78711-2548 *ATTORNEYS FOR INTERVENORS*

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing pleading has been served on the following counsel of record on this 16th day of May, 2016, in accordance with Rule 21a of the Texas Rules of Civil Procedure, electronically through the electronic filing manager:

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/s/ Austin R. Nimocks
Austin R. Nimocks
Associate Deputy Attorney General for
Special Litigation

Exhibit X

NEWS ADVISORY
Luther Strange
Alabama Attorney General

FOR IMMEDIATE RELEASE
March 30, 2016

For More Information, contact:
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STATE AG's STRANGE, PRUITT CONDEMN ATTEMPTS TO SILENCE THOSE WHO DISAGREE WITH PRESIDENT OBAMA'S ENERGY AGENDA

(MONTGOMERY) – Alabama Attorney General Luther Strange and Oklahoma Attorney General Scott Pruitt released the following statement Wednesday:

"Yesterday, Al Gore, New York Attorney General Eric Schneiderman, and a small handful of other East Coast State Attorneys General announced what they called an "unprecedented coalition" that "vows to defend climate change progress made under President Obama and to push the next President for even more aggressive action" by seeking to criminally investigate energy companies for disputing the science behind global warming.

"We won't be joining this effort, and we want to explain why. Reasonable minds can disagree about the science behind global warming, and disagree they do. This scientific and political debate is healthy, and it should be encouraged. It should not be silenced with threats of criminal prosecution by those who believe that their position is the only correct one and that all dissenting voices must therefore be intimidated and coerced into silence. It is inappropriate for State Attorneys General to use the power of their office to attempt to silence core political speech on one of the major policy debates of our time.

"We are proud to be a part of a different coalition, one driven by respect for the rule of law, rather than by ambition to use the law to silence voices with which we disagree. Our coalition of 29 states is leading the fight to challenge the legality of President Obama's plan to kill off fossil fuels – his so-called "Clean Power Plan." The 29 states and state Attorneys General who are part of this effort respect our proper role, which is not to pick winners and losers in the energy sector nor to silence those who disagree with us, but rather to ensure that the EPA is acting consistent with the power granted to it by Congress and to fulfill our statutory duties to ensure that the consumers in our states have access to reliable, affordable energy. In fulfilling these duties, the 29 states and their Attorney Generals understand that all sources of energy should be considered – not just those that we may prefer for one policy reason or another – so that we give ourselves the best possible chance to achieve our goal of energy independence, with reliable and affordable energy available at the lowest possible cost to our citizens."

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Exhibit Y

CLOSE PRINT

OFFICE OF THE ATTORNEY GENERAL
State of Louisiana

JEFF LANDRY

RECENT NEWS

3/30/2016 11:47:00 AM

Attorney General Jeff Landry Slams Al Gore's Coalition

BATON ROUGE, LA – Louisiana Attorney General issued the following statement after yesterday's press conference by former Vice President Al Gore and those state Attorneys General supportive of the EPA's power plant regulation halted last month by the United States Supreme Court:

"While I was not surprised to see these Attorneys General announce their intention to continue working in support of the unlawful and misguided Clean Power Plan – I was disturbed by their parallel announcement to 'use all tools at [their] disposal to fight for Climate Progress,' including the unfettered investigation of individual coal, oil, and natural gas companies' past or current climate opinions, views, or research. It is one thing to use the legal system to pursue public policy outcomes; but it is quite another to use prosecutorial weapons to intimidate critics, silence free speech, or chill the robust exchange of ideas.

We have seen powerful forces at work nationally targeting, most recently and visibly, our nation's coal industry. It is now abundantly clear that the crosshairs have shifted to our country's oil and natural gas industries.

In contrast to yesterday's news conference by 16 state Attorneys General from largely non-oil and gas producing states, Louisiana stands with more than 29 states and state agencies who remain in steadfast opposition to the EPA's Clean Power Plan. I will continue to work my fellow Attorneys General from across the country to ensure Louisiana workers, job creators, and consumers are not burdened by the EPA's overreach or threatened by this new and disturbing development of unleashing the prosecutorial arsenal to quell dissent on such an important issue of public debate."

Exhibit Z

LAMAR S. SMITH, Texas
CHAIRMAN

EDDIE BERNICE JOHNSON, Texas
RANKING MEMBER

Congress of the United States
House of Representatives

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

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May 18, 2016

The Honorable Eric Schneiderman
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Office of the Attorney General
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Albany, NY 12224-0341

Dear Mr. Attorney General,

The Committee on Science, Space, and Technology is conducting oversight of a coordinated attempt to deprive companies, nonprofit organizations, and scientists of their First Amendment rights and ability to fund and conduct scientific research free from intimidation and threats of prosecution. On March 29, 2016, you and other state attorneys general – the self-proclaimed "Green 20" – announced that you were cooperating on an unprecedented effort against those who have questioned the causes, magnitude, or best ways to address climate change.[1] The Committee is concerned that these efforts to silence speech are based on political theater rather than legal or scientific arguments, and that they run counter to an attorney general's duty to serve "as the guardian of the legal rights of the citizens" and to "assert, protect, and defend the rights of the people."[2] These legal actions may even amount to an abuse of prosecutorial discretion. To assist in the Committee's oversight of this matter, I am writing to request information related to your office's role in this investigation.

The 2012 Workshop to Explore Legal Avenues to Demonize the Fossil Fuel Industry

According to media reports, efforts to instigate an investigation such as the one announced by the Green 20 on March 29 date back to at least 2012 and are the result of a "four-year, coordinated strategy by environmental organizations and trial attorneys."[3] In June 2012, the Climate Accountability Institute (CAI) and the Union of Concerned Scientists (UCS) convened a "Workshop on Climate Accountability, Public Opinion, and Legal Strategies" in La

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[1] Video Press Conference with Eric Schneiderman, Attorney General, N.Y. State (Mar. 29, 2016); John Schwartz, *Exxon Mobil Climate Change Inquiry in New York Gains Allies,* N.Y. TIMES, Mar. 29, 2016, *available at* http://www.nytimes.com/2016/03/30/science/new-york-climate-change-inquiry-into-exxon-adds-prosecutors.html?_r=2.

[2] Bureaus of Attorney General, New York, May 12, 2016, *available at http://www.ag.ny.gov/bureaus*; Office of the Attorney General, U.S. Virgin Islands, Dept. of Justice, May 12 ,2016, *available at* http://usvidoj.codemeta.com/DivisionContent_1.php?divId=84.

[3] Phil McKenna, *Activists Step Up Long-Running Campaign to Hold Oil Industry Accountable for Climate Damages* Inside Climate News, Apr. 27, 2016, *available at* http://insideclimatenews.org/news/26042016/environmental-activists-campaign-exxon-climate-change-investigation-attorney-general-schneiderman.

Jolla, California.[4] The workshop's attendees included UCS Director of Science and Policy Peter Frumhoff and activist trial attorney Matthew Pawa, founder of the Global Warming Legal Action Project.[5]

The goal of the 2012 workshop was to develop a "strategy to fight industry in the courts," as well as to find ways to address what workshop attendees believed to be a "network of public relations firms and nonprofit 'front groups' that have been actively sowing disinformation about global warming for years."[6] According to the workshop's report, a necessary component of their strategy was to bring "internal industry documents to light."[7] Workshop attendees then proceeded to identify ways to procure documents that they admittedly did not know existed (e.g., "many participants suggested that incriminating documents **may** exist):"[8]

> Having attested to the importance of seeking internal documents … lawyers at the workshop emphasized that there are many effective avenues for gaining access to such documents. First, lawsuits are not the only way to win the release of documents … **State attorneys general can also subpoena documents, raising the possibility that a single sympathetic state attorney general might have substantial success in bringing key internal documents to light.** In addition, lawyers at the workshop noted that even grand juries convened by a district attorney could result in significant document discovery.[9]

The strategy decided upon by workshop participants appears clear: to act under the color of law to persuade attorneys general to use their prosecutorial powers to stifle scientific discourse, intimidate private entities and individuals, and deprive them of their First Amendment rights and freedoms.

The 2016 Rockefeller Family Fund Meeting and the Attempt to Conceal Collusion between Your Office and Extremist Environmental Groups and Trial Lawyers

In January 2016, nearly four years later, a group of environmental activists, including 2012 workshop participant Matthew Pawa, as well as representatives from groups such as

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[4] Establishing Accountability for Climate Change Damages: Lessons from Tobacco Control, Climate Accountability Institute, and Union of Concerned Scientists, Oct. 2012, *available at* http://www.climateaccountability.org/pdf/Climate%20Accountability%20Rpt%20Oct12.pdf.
[5] *Id.*
[6] Phil McKenna, *Activists Step Up Long-Running Campaign to Hold Oil Industry Accountable for Climate Damages,* Inside Climate News, Apr. 27, 2016, *available at* http://insideclimatenews.org/news/26042016/environmental-activists-campaign-exxon-climate-change-investigation-attorney-general-schneiderman; Establishing Accountability for Climate Change Damages: Lessons from Tobacco Control, Climate Accountability Institute, and Union of Concerned Scientists, Oct. 2012, *available at* http://www.climateaccountability.org/pdf/Climate%20Accountability%20Rpt%20Oct12.pdf.
[7] Establishing Accountability for Climate Change Damages: Lessons from Tobacco Control, Climate Accountability Institute, and Union of Concerned Scientists, Oct. 2012, *available at* http://www.climateaccountability.org/pdf/Climate%20Accountability%20Rpt%20Oct12.pdf.
[8] *Id.* [emphasis added]
[9] *Id.* [emphasis added]

350.org and Greenpeace, met at the Manhattan offices of the Rockefeller Family Fund.[10] The meeting was held to develop a strategy "to establish in [the] public's mind that Exxon is a corrupt institution that has pushed humanity (and all creation) toward climate chaos and grave harm," and "[t]o drive Exxon & climate into [the] center of [the] 2016 election cycle."[11] According to media reports, the meeting also included a discussion of state attorneys general, the Department of Justice, and "the main avenues for legal actions & related campaigns."[12] Specifically, meeting attendees were to focus on determining "the best prospects for successful action? For getting discovery? For creating scandal?"[13]

Finally, on March 29, 2016, in the hours before you and other members of the Green 20, joined by former Vice President Al Gore, held your widely-publicized press conference announcing your cooperation on investigations against those who question the causes, magnitude, or best ways to address climate change, members of your group were briefed by 2012 workshop attendees Matthew Pawa of the Global Warming Legal Action Project and UCS's Peter Frumhoff. It has since come to light that your office willfully concealed the fact that this briefing took place. According to emails discovered and posted online by a watchdog group, on March 30, Matthew Pawa wrote to an attorney in your office stating that a *Wall Street Journal* reporter wanted to talk with Pawa about the pre-conference briefing. Pawa asked an attorney in your office, "What should I say if she asks if I attended?"[14] Your attorney replied, "My ask is if you speak to the reporter, to not confirm that you attended or otherwise discuss the event."[15]

In the weeks since the March 29 press conference, legal actions against those who question climate change orthodoxy by members of the Green 20 have rapidly expanded to include subpoenas for documents, communications, and research that would capture the work of more than 100 academic institutions, scientists, and nonprofit organizations. According to press reports, most of those targeted were identified from lists published on an environmental activist organization's website.[16]

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[10] Amy Harder, Devlin Barret, and Bradley Olson, *Exxon Fires Back at Climate-Change Probe,* WALL ST. J., Apr. 13, 2016, *available at* http://www.wsj.com/articles/exxon-fires-back-at-climate-change-probe-1460574535?cb=logged0.4458549134086849.

[11] *Id.*

[12] Alana Goodman, *Memo Shows Secret Coordination Effort Against ExxonMobil by Climate Activists, Rockefeller Fund,* Wash. Free Beacon, Apr. 14, 2016, *available at http://freebeacon.com/issues/memo-shows-secret-coordination-effort-exxonmobil-climate-activists-rockefeller-fund.*

[13] *Id.*

[14] Valerie Richardson, *Democratic AGs, Climate Change Groups Collude on Prosecuting Dissenters, Emails Show,* WASH. TIMES, Apr. 17, 2016, *available at* http://www.washingtontimes.com/news/2016/apr/17/democratic-ags-climate-change-groups-colluded-on-p/?page=all.

[15] *Id.*

[16] Valerie Richardson, *Exxon Climate Change Dissent Subpoena Sweeps Up More than 100 U.S. Institutions,* WASH. TIMES, May 3, 2016, *available at* http://m.washingtontimes.com/news/2016/may/3/virgin-islands-ag-subpoenas-exxon-communications/.

The Committee's Request for Transparency

This sequence of events – from the 2012 workshop to develop strategies to enlist the help of attorneys general to secure documents, to the 2016 subpoenas issued by you and other members of the Green 20 – raises serious questions about the impartiality and independence of current investigations by the attorneys general. Your office – funded with taxpayer dollars – is using legal actions and investigative tactics taken in close coordination with certain special interest groups and trial attorneys may rise to the level of an abuse of prosecutorial discretion. Further, such actions call into question the integrity of your office.

To assist the Committee in its oversight of a coordinated attempt to attack the First Amendment rights of American citizens and their ability to fund and conduct scientific research free from intimidation and threats of prosecution, we request the following documents and information as soon as possible, but by no later than noon on May 30, 2016. Please provide the requested information for the time frame from January 1, 2012, to the present:

1. All documents and communications between or among employees of the Office of the Attorney General of New York and any officer or employee of the Climate Accountability Institute, the Union of Concerned Scientists, Greenpeace, 350.org, the Rockefeller Brothers Fund, the Rockefeller Family Fund, the Global Warming Legal Action Project, the Pawa Law Group, and the Climate Reality Project, referring or relating to your office's investigation, *subpoenas duces tecum*, or potential prosecution of companies, nonprofit organizations, scientists, or other individuals related to the issue of climate change.

2. All documents and communications between or among employees of the Office of the Attorney General of New York and any other state attorney general office referring or relating to your office's investigation, *subpoenas duces tecum*, or potential prosecution of companies, nonprofit organizations, scientists, or other individuals related to the issue of climate change.

3. All documents and communications between or among employees of the Office of the Attorney General of New York and any official or employee of the U.S. Department of Justice, U.S. Environmental Protection Agency, or the Executive Office of the U.S. President referring or relating to your office's investigation, *subpoenas duces tecum*, or potential prosecution of companies, nonprofit organizations, scientists, or other individuals related to the issue of climate change.

The Committee on Science, Space, and Technology has jurisdiction over environmental and scientific programs and "shall review and study on a continuing basis laws, programs, and Government activities" as set forth in House Rule X.

When producing documents to the Committee, please deliver production sets to the Majority Staff in Room 2321 of the Rayburn House Office Building and the Minority Staff in Room 394 of the Ford House Office Building. The Committee prefers, if possible, to receive all

documents in electronic format. An attachment provides information regarding producing documents to the Committee.

If you have any questions about this request, please contact Committee Staff at 202-225-6371. Thank you for your attention to this matter.

Sincerely,

Rep. Lamar Smith
Chairman

Rep. Frank D. Lucas
Vice Chairman

Rep. F. James Sensenbrenner, Jr.
Member of Congress

Rep. Dana Rohrabacher
Member of Congress

Rep. Randy Neugebauer
Member of Congress

Rep. Mo Brooks
Member of Congress

Rep. Bill Posey
Member of Congress

Rep. Jim Bridenstine
Chairman
Subcommittee on Environment

Rep. Randy Weber
Chairman
Subcommittee on Energy

Rep. John Moolenaar
Member of Congress

Rep. Brian Babin
Chairman
Subcommittee on Space

Rep. Barry Loudermilk
Chairman
Subcommittee on Oversight

Rep. Ralph Lee Abraham
Member of Congress

cc: The Honorable Eddie Bernice Johnson, Ranking Member, Committee on Science, Space, and Technology

Enclosure

Exhibit AA

STATE OF NEW YORK
OFFICE OF THE ATTORNEY GENERAL
120 BROADWAY
NEW YORK, NY 10271

ERIC T. SCHNEIDERMAN
ATTORNEY GENERAL

LESLIE B. DUBECK
COUNSEL

May 26, 2016

The Honorable Lamar Smith
Chairman
House Committee on Science, Space, and Technology
2321 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Smith:

I write in response to the May 18, 2016 letter (the "Letter") signed by you and several other Republican members of the House Committee on Science, Space, and Technology (the "Committee") requesting that my office provide various documents and communications referring or relating to law enforcement and investigative activities of the Office of the Attorney General of New York ("NYOAG") concerning climate change.

NYOAG has a long, very proud history of aggressively protecting investors and consumers from corporate fraud. The matter that appears to be the focus of your attention is our ongoing investigation into whether ExxonMobil Corporation violated New York's securities, business and consumer fraud laws by making false or misleading statements to investors and consumers relating to climate change driven risks and their impact on Exxon's business. This investigation comes on the heels of an investigation NYOAG concluded last year into Peabody Energy Corporation, then the largest publicly traded coal company in the world, which found that Peabody made false and misleading statements to the public and investors regarding financial risks associated with climate change and the effects of potential regulatory responses on the market for coal.[1]

For the reasons set forth below, the NYOAG respectfully declines to provide the materials requested by the Letter. The Letter is premised on a series of incorrect statements and assumptions regarding the actions of the NYOAG and raises serious constitutional concerns,

[1] Under the agreement concluding the NYOAG investigation, Peabody committed to revising its disclosures to investors regarding the company's financial risks related to climate change. Assurance of Discontinuance at pp. 9-10, *In the Matter of Investigation by Eric T. Schneiderman, Attorney General of the State of New York, of Peabody Energy Corporation*, Assurance No. 15-242 (Nov. 8, 2015), http://ag.ny.gov/pdfs/Peabody-Energy-Assurance-signed.pdf.

including the lack of congressional jurisdiction over state law enforcement activities and the Committee's intrusion into sovereign state actions protected by the 10th Amendment to the U.S. Constitution.

First, the Letter makes unfounded claims about the NYOAG's motives. Our investigation seeks to ensure that investors and consumers were and are provided with complete and accurate information that is indispensable to the just and effective functioning of our free market. There is no basis for your suggestion that the NYOAG has been engaged in a "coordinated attempt to deprive companies, nonprofit organizations, and scientists of their First Amendment rights and ability to fund and conduct scientific research free from intimidation and threats of prosecution." As I am sure you are aware, "the First Amendment does not shield fraud." *Illinois v. Telemarketing Associates, Inc.,* 538 U.S. 600, 612 (2003) (allowing fraud claim and rejecting argument that fraudulent charitable solicitations are protected by the First Amendment); *People v. Coalition Against Breast Cancer, Inc.*, 22 N.Y.S.3d 562, 565 (2d Dep't 2015) (same); *United States v. Philip Morris USA, Inc.*, 566 F.3d 1095, 1123 (D.C. Cir. 2009) (holding that false and misleading statements about the health effects and addictiveness of smoking cigarettes were not protected by the First Amendment); *SEC v. Pirate Investor LLC*, 580 F.3d 233, 255 (2009) ("Punishing fraud, whether it be common law fraud or securities fraud, simply does not violate the First Amendment.").

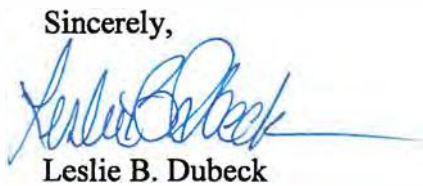
Second, Congress does not have jurisdiction to demand documents and communications from a state law enforcement official regarding the exercise of a State's sovereign police powers, such as the NYOAG's investigation of ExxonMobil. Congress' powers are limited by the 10th Amendment to those granted by the U.S. Constitution, and its investigative jurisdiction is derived from and limited by its power to legislate concerning federal matters. *See, e.g.*, *Barenblatt v. United States*, 360 U.S. 109, 111-12 (1959); *Kilbourn v. Thompson*, 103 U.S. 168, 195-96 (1880). Thus, Congress' oversight authority does not extend to investigations by a state Attorney General. *See, e.g.*, *Watkins v. United States*, 354 U.S. 178, 187 (1957) ("The power of the Congress to conduct investigations . . . comprehends probes into departments of the Federal Government . . . .").

Investigations and other law enforcement actions by a state Attorney General for potential violations of state law, as here, involve the exercise of police powers reserved to the States under the 10th Amendment, and are not the appropriate subject of federal legislation, oversight or interference. *See, e.g.*, *New York v. United States*, 505 U.S. 144, 162 (1992) ("[T]he Constitution has never been understood to confer upon Congress the ability to require the States to govern according to Congress' instructions.") Our federal system contemplates a crucial role for state law enforcement. *See* The Federalist No. 45 at 357 (James Madison) (Robert Scigliano ed., 2010) (the powers delegated "to the federal government are few and defined. . . . The powers reserved to the several states will extend to all objects which, in the ordinary course of affairs, concern the lives, liberties, and property of the people, and the internal order, improvement, and prosperity of the state").

Third, we are not aware of any precedent supporting a Congressional investigation or oversight of a state Attorney General, as contemplated by the Letter. Indeed, absent an explicit authorization, a committee's investigative power is narrowly construed to avoid serious constitutional concerns, such as the state sovereignty issues that are implicated here. *See Tobin v. United States,* 306 F.2d 270, 275 (D.C. Cir.), *cert denied,* 371 U.S. 902 (1962) (overturning contempt conviction involving House Judiciary Subcommittee subpoena of Port of New York Authority records pursuant to "expansive investigation of an interstate compact agency" by Congress that had "never before [been] attempted"). The Letter does not identify any congressional authorization to engage in this inquiry; nor could it, given the constitutional principles discussed above. Under House Rule X, cited in the Letter, Congress has authorized the Committee on Science, Space, and Technology, to "review and study on a continuing basis laws, programs, and Government activities relating to nonmilitary research and development." Rule X(3)(k). Congress has not delegated this committee with any oversight authority concerning the investigations of state attorneys general regarding violations of state securities, consumer or business laws, nor could it. Moreover, throughout the Rules of the House of Representatives, context demands that "Government" with a capital "G" be understood as a proper noun to describe a specific government—the Federal Government—and not *all* governments. *See, e.g.*, Rule X(4)(c)(1)(B) (Committee on Oversight and Government Reform shall "evaluate the effects of laws enacted to reorganize the legislative and executive branches of the Government"). *See also* Gov't Printing Office Style Manual, Rule 3.19. The governments of the several states are distinct entities from the entity that is the Government of the United States. *United States v. Cruikshank*, 92 U.S. 542, 549 (1876) ("We have in our political system a government of the United States and a government of each of the several States. Each one of these governments is distinct from the others . . . .").

We trust that you and the other signatory Committee members appreciate the importance of our federal system, state law enforcement activities, and the critical need to maintain their integrity and independence from federal interference.

Sincerely,



Leslie B. Dubeck
Counsel

cc: Honorable Eddie Bernice Johnson
Ranking Member, Committee on Science, Space, and Technology

Majority Staff, Committee on Science, Space, and Technology
Rayburn House Office Building, Room 2321

Minority Staff, Committee on Science, Space, and Technology
Ford House Office Building, Room 394

Exhibit BB

COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY (/)
Lamar Smith, Chairman

(http://www.facebook.com/SciSpaceTechCmt) (//twitter.com/HouseScience) (http://www.youtube.com/channel/UCtoUE3dJ-mLUo5dwGs7hXOw) (newsletter-subscribe) (/rss.xml)

Smith Subpoenas MA, NY Attorneys General, Environmental Groups

Jul 13, 2016 | Press Release

WASHINGTON – Science, Space, and Technology Committee Chairman Lamar Smith (R-Texas) today issued subpoenas to New York Attorney General Eric Schneiderman, Massachusetts Attorney General Maura Healey, and eight environmental organizations to obtain documents related to coordinated efforts to deprive companies, nonprofit organizations, scientists and scholars of their First Amendment rights.

Chairman Lamar Smith (R-Texas): "The attorneys general have appointed themselves to decide what is valid and what is invalid regarding climate change. The attorneys general are pursuing a political agenda at the expense of scientists' right to free speech.

"The Committee has a responsibility to protect First Amendment rights of companies, academic institutions, scientists, and nonprofit organizations. That is why the Committee is obligated to ask for information from the attorneys general and others.

"Unfortunately, the attorneys general have refused to give the committee the information to which it is entitled. What are they hiding? And why?"

Energy Subcommittee Chairman Randy Weber (R-Texas): "Since when did it become a crime to express or hold an opinion? The difference of opinions is what makes our country so strong and unique. It's this freedom without censorship or restraint that helped build our country. However, this posse of attorneys general believe that those whose opinion, or scientific research, conflicts with the alleged consensus view on climate change should be the subject of investigation and prosecution by government officials - talk about a chilling effect on free speech."

Space Subcommittee Chairman Brian Babin (R-Texas): "Since March, these attorneys general have attempted to use questionable legal tactics to force the production of documents and communications from a broad group of scientists, companies, and non-profit organizations. These actions are an attempt to chill the scientific research of those who do not support the attorneys' general and environmental groups' political positions.

"These actions amount to a political attack rather than a serious inquiry based on the law. Today's action by the Science Committee and Chairman Smith sustains the commitment to protect the First Amendment rights of the individuals and groups targeted by the attorneys general and environmental activists."

Rep. Darin LaHood (R-Ill.): "Instead of pursuing real threats to America, these attorneys general are going down a path of partisan politics and attacking people who disagree with their conclusions about climate change. The administration has attempted to avoid all debate on climate change by circumventing Congress and signing international agreements without the consent of the Senate, and it now appears that Democratic attorneys general are following the president's lead.

"If the debate on climate change is settled, the environmental activists and state attorneys general should have no problem convincing the American public with their own evidence and arguments. Why go to such great lengths to squash differing opinions and anyone who questions their conclusions? These individuals, scientists, and organizations have the right to conduct research, form their own opinions, and voice those opinions."

Rep. Warren Davidson (R-Ohio): "Instead of upholding the constitution, protecting citizens, and putting real criminal behind bars, these attorneys general are using taxpayer dollars to manufacture charges to send a political message. This demonstrates a clear deviation from the legal duties of an attorney general and the possible abuse of discretionary judgement. It is not the job of the attorneys general to decide what science should be conducted, and their actions indicate their intent is to silence certain voices."

Chairman Smith followed up the subpoenas with a press conference (https://www.facebook.com/SciSpaceTechCmt/) on Capitol Hill this afternoon.

On July 6, Chairman Smith sent letters (/news/press-releases/committee-ramps-investigation-threatens-use-compulsory-process-against-members) to the individuals and organizations subpoenaed today reiterating his May 18 (/news/press-releases/committee-scrutinizes-motive-green-20) and June 20 (/news/press-releases/committee-stands-firm-investigation-green-20) requests for documents and communications, setting a deadline for those documents as July 13 (today) at 12:00 p.m., and threatening the use of compulsory process pending their compliance with the requests. The attorneys general and environmental groups have refused to comply with the committee's investigation at every step.

114th Congress

Exhibit CC

THE ATTORNEY GENERAL OF TEXAS

KEN PAXTON

Attorney General Paxton Intervenes in First Amendment Case

Monday, May 16, 2016 – Ft.Worth

Attorney General Ken Paxton on Monday joined Alabama in asking a state judge to put an end to a ridiculous investigation launched against ExxonMobil by Claude Earl Walker, Attorney General of the U.S. Virgin Islands. Walker, working with a Washington, D.C.-based private law firm, issued a subpoena for more than four decades' worth of Exxon records, alleging the company has engaged in racketeering due to its stated position on climate change, in a clear contradiction to the First Amendment to the U.S. Constitution.

"This case is about abusing the power of the subpoena to force Exxon to turn over many decades' worth of records, so an attorney general with an agenda can pore over them in hopes of finding something incriminating," said Attorney General Ken Paxton. "It's a fishing expedition of the worst kind, and represents an effort to punish

Exxon for daring to hold an opinion on climate change that differs from that of radical environmentalists."

The First Amendment ensures that all people are free to hold opinions and promote them in public debate. This action by the Virgin Islands' AG could effectively set a precedent that anyone can be criminally investigated because of their stated opinions. ExxonMobil, which employs thousands in Texas, faces high court costs if the investigation goes forward.

This version updates with the correct brief:

https://www.texasattorneygeneral.gov/files/epress/files/2016/2016-05-16_exxon_states_intervention.pdf

AG Ken Paxton Speaks About Exxon Being Targeted for Climate Change Beliefs

1

Related News

AG Paxton Files Lawsuit to Halt Illegal Buck-a-Bag Fee in Brownsville

Victoria Child Support Office Moves to New Location

Exhibit DD

United States Senate

WASHINGTON, DC 20510

May 25, 2016

The Honorable Loretta Lynch
Attorney General
United States Department of Justice
Washington, D.C. 20530

Re: DOJ's investigation into private entities' views on climate change

Dear Attorney General Lynch:

We write today to demand that the Department of Justice (DOJ) immediately cease its ongoing use of law enforcement resources to stifle private debate on one of the most controversial public issues of our time—climate change.

This past March, during a DOJ oversight hearing before the Senate Judiciary Committee, one of our colleagues from the other side of the aisle lamented that, "[u]nder President Obama, the Department of Justice has done nothing so far about the climate denial scheme." To our astonishment, you responded as follows:

> This matter has been discussed. We have received information about it and have referred it to the FBI to consider whether or not it meets the criteria for what we could take action on.

We also understand that, in 2015, the Department was asked by a "coalition of environmentalists and lawmakers"[1] to investigate whether the past decisions of a private sector company to adopt and publicly disclose certain views on climate issues, and to refrain from adopting and publicly disclosing others, may have violated the Racketeer Influenced and Corrupt Organizations Act and related laws.

Statements from a March 29, 2016, press conference held by Democrat Attorneys General from New York, Connecticut, Maryland, Massachusetts, and Virginia, along with staff from the Democrat Attorney General's offices in California, Delaware, the District of Columbia, Illinois, Iowa, Maine, Minnesota, New Mexico, Oregon, Rhode Island, and Washington (the "State Attorneys General") make clear that similar investigations are ongoing. The Attorney

[1] Valerie Richardson, *Democratic AGs, climate change groups colluded on prosecuting dissenters, emails show.* http://www.washingtontimes.com/news/2016/apr/17/democratic-ags-climate-change-groups-colluded-on-p/ (April 17, 2016).

General of the United States Virgin Islands also issued a subpoena seeking from over 100 private parties, including universities, scientists and nonprofit organizations, decades worth of documents, communications, emails, op-eds, speeches, advertisements, letters to the editor, research, reports, studies and memoranda of any kind—including drafts—that refer to climate change, greenhouse gases, carbon tax, or climate science.[2]

These actions provide disturbing confirmation that government officials at all levels are threatening to wield the sword of law enforcement to silence debate on climate change.[3] As you well know, initiating criminal prosecution for a private entity's opinions on climate change is a blatant violation of the First Amendment and an abuse of power that rises to the level of prosecutorial misconduct.[4] Using such a prosecution to issue intrusive demands targeting individuals who represent the parts of civil society that are most dependent on free inquiry and debate is something categorically different. As the U.S. Court of Appeals for the Sixth Circuit reminded the Justice Department just weeks ago, "no citizen—Republican or Democrat, socialist or libertarian—should be targeted or even have to fear being targeted"[5] on the basis of ideological disagreement with the government.

We encourage you to consider the following statement from Alabama Attorney General Luther Strange and Oklahoma Attorney General Scott Pruitt, issued in response to the announcement of the investigation by the previously referenced State Attorneys General, as you consider your path forward:

> [Scientific and political debate] should not be silenced with threats of criminal prosecution by those who believe that their position is the only correct one and that all dissenting voices must therefore be intimidated and coerced into silence. It is inappropriate for State Attorneys General to use the power of their office to attempt to silence core political speech on one of the major policy debates of our time.[6]

In light of the above, please confirm within 14 days that the Department (1) has terminated all investigations or inquiries arising from any private individual or entity's views on climate change and (2) will not initiate in the future any such investigations or inquiries. In addition, we ask that you explain what steps you are taking as the federal official charged with protecting the civil rights of American citizens to prevent state law enforcement officers from unconstitutionally harassing private entities or individuals simply for disagreeing with the prevailing climate change orthodoxy.

We expect your prompt attention to this matter. If you have any questions, please contact Senator Mike Lee's Judiciary Committee staff at (202) 224-2791.

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[2] Valerie Richardson, *Exxon climate change dissent subpoena sweeps up more than 100 U.S. institutions*. http://www.washingtontimes.com/news/2016/may/3/virgin-islands-ag-subpoenas-exxon-communications/ (May 3, 2016).

[3] Megan McArdle, *Subpoenaed Into Silence on Global Warming*, http://www.bloombergview.com/articles/2016-04-08/subpoenaed-into-silence-on-global-warming (April 8, 2016).

[4] 18 U.S.C. § 530B; *ABA Model Rule* 3.1.

[5] *United States v. NorCal Tea Party Patriots*, No. 15-3793, slip op. at *1 (6th Cir., Mar. 22, 2016).

[6] Richardson, *supra*, at note 1.

Very truly yours,

Senator Mike Lee

Senator Ted Cruz

Senator Jeff Sessions

Senator David Perdue

Senator David Vitter

Exhibit EE

STATE OF NEW YORK
OFFICE OF THE ATTORNEY GENERAL

SUBPOENA FOR PRODUCTION OF DOCUMENTS
THE PEOPLE OF THE STATE OF NEW YORK

TO: S. Jack Balagia, Jr.
Vice-President and General Counsel
Exxon Mobil Corporation
Corporate Headquarters
5959 Las Colinas Boulevard
Irving, Texas 75039-2298

WE HEREBY COMMAND YOU, pursuant to New York State Executive Law Section 63(12) and Section 2302(a) of the New York State Civil Practice Law and Rules, to deliver and turn over to Eric T. Schneiderman, the Attorney General of the State of New York, or a designated Assistant Attorney General, on the **4th day of December, 2015** by 10:00 a.m., or any agreed upon adjourned date or time, at the at the offices of the New York State Office of the Attorney General, 120 Broadway, 26th Floor, New York, New York 10271, all documents and information requested in the attached Schedule in accordance with the instructions and definitions contained therein in connection with an investigation to determine whether an action or proceeding should be instituted with respect to repeated fraud or illegality as set forth in the New York State Executive Law Article 5, Section 63(12), violations of the deceptive acts and practices law as set forth in New York State General Business Law Article 22-A, potential fraudulent practices in respect to stocks, bonds and other securities as set forth in New York State General Business Law Article 23-A, and any related violations, or any matter which the Attorney General deems pertinent thereto.

PLEASE TAKE NOTICE that under the provisions of Article 23 of the New York State Civil Practice Laws and Rules, you are bound by this subpoena to produce the documents requested on the date specified and any adjourned date. Pursuant to New York State Civil Practice Laws and Rules Section 2308(b)(1), your failure to do so subjects you to, in addition to any other lawful punishment, costs, penalties and damages sustained by the State of New York State as a result of your failure to so comply.

PLEASE TAKE NOTICE that the Attorney General deems the information and documents requested by this Subpoena to be relevant and material to an investigation and inquiry undertaken in the public interest.

WITNESS, Honorable Eric T. Schneiderman, Attorney General of the State of New York, this 4th day of November, 2015.

By: _____

Lemuel M. Srolovic
Kevin G. W. Olson
Mandy DeRoche

Office of the Attorney General
Environmental Protection Bureau

120 Broadway, 26th Floor
New York, New York 10271
(212) 416-8448 (telephone)
(212) 416-6007 (facsimile)

SCHEDULE 1

A. General Definitions and Rules of Construction

1. "All" means each and every.

2. "Any" means any and all.

3. "And" and "or" shall be construed either disjunctively or conjunctively as necessary to bring within the scope of the Subpoena all information or Documents that might otherwise be construed to be outside of its scope.

4. "Communication" means any conversation, discussion, letter, email, memorandum, meeting, note or other transmittal of information or message, whether transmitted in writing, orally, electronically or by any other means, and shall include any Document that abstracts, digests, transcribes, records or reflects any of the foregoing. Except where otherwise stated, a request for "Communications" means a request for all such Communications.

5. "Concerning" means, directly or indirectly, in whole or in part, relating to, referring to, describing, evidencing or constituting.

6. "Custodian" means any Person or Entity that, as of the date of this Subpoena, maintained, possessed, or otherwise kept or controlled such Document.

7. "Document" is used herein in the broadest sense of the term and means all records and other tangible media of expression of whatever nature however and wherever created, produced or stored (manually, mechanically, electronically or otherwise), including without limitation all versions whether draft or final, all annotated or nonconforming or other copies, electronic mail ("e-mail"), instant messages, text messages, Blackberry or other wireless device messages, voicemail, calendars, date books, appointment books, diaries, books, papers, files, notes, confirmations, accounts statements, correspondence, memoranda, reports, records, journals, registers, analyses, plans, manuals, policies, telegrams, faxes, telexes, wires, telephone logs, telephone messages, message slips, minutes, notes or records or transcriptions of conversations or Communications or meetings, tape recordings, videotapes, disks, and other electronic media, microfilm, microfiche, storage devices, press releases, contracts, agreements, notices and summaries. Any non-identical version of a Document constitutes a separate Document within this definition, including without limitation drafts or copies bearing any notation, edit, comment, marginalia, underscoring, highlighting, marking, or any other alteration of any kind resulting in any difference between two or more otherwise identical Documents. In the case of Documents bearing any notation or other marking made by highlighting ink, the term Document means the original version bearing the highlighting ink, which original must be produced as opposed to any copy thereof. Except where otherwise stated, a request for "Documents" means a request for all such Documents.

8. "Entity" means without limitation any corporation, company, limited liability company or corporation, partnership, limited partnership, association, or other firm or similar body, or any unit, division, agency, department, or similar subdivision thereof.

9. "Identify" or "Identity," as applied to any Document means the provision in writing of information sufficiently particular to enable the Attorney General to request the Document's production through subpoena or otherwise, including but not limited to: (a) Document type (letter, memo, etc.); (b) Document subject matter; (c) Document date; and (d) Document author(s), addressee(s) and recipient(s). In lieu of identifying a Document, the Attorney General will accept production of the Document, together with designation of the Document's Custodian, and identification of each Person You believe to have received a copy of the Document.

10. "Identify" or "Identity," as applied to any Entity, means the provision in writing of such Entity's legal name, any d/b/a, former, or other names, any parent, subsidiary, officers, employees, or agents thereof, and any address(es) and any telephone number(s) thereof.

11. "Identify" or "Identity," as applied to any natural person, means and includes the provision in writing of the natural person's name, title(s), any aliases, place(s) of employment, telephone number(s), e-mail address(es), mailing addresses and physical address(es).

12. "Person" means any natural person, or any Entity.

13. "Sent" or "received" as used herein means, in addition to their usual meanings, the transmittal or reception of a Document by physical, electronic or other delivery, whether by direct or indirect means.

14. "Subpoena" means this subpoena and any schedules, appendices, or attachments thereto.

15. The use of the singular form of any word used herein shall include the plural and vice versa. The use of any tense of any verb includes all other tenses of the verb.

16. The references to Communications, Custodians, Documents, Persons, and Entities in this Subpoena encompass all such relevant ones worldwide.

B. Particular Definitions

1. "You" or "Your" means ExxonMobil Corporation, ExxonMobil Oil Corporation, any present or former parents, subsidiaries, affiliates, directors, officers, partners, employees, agents, representatives, attorneys or other Persons acting on its behalf, and including predecessors or successors or any affiliates of the foregoing.

2. "Climate Change" means global warming, Climate Change, the greenhouse effect, a change in global average temperatures, sea level rise, increased concentrations of carbon dioxide and other Greenhouse Gases and/or any other potential effect on the earth's physical and biological systems as a result of anthropogenic emissions of carbon dioxide

and other Greenhouse Gases, in any way the concept is described by or to You.

3. "Fossil Fuel" or "Fossil Fuels" means all energy sources formed from fossilized remains of dead organisms, including oil, gas, bitumen and natural gas, but excluding coal. For purposes of this subpoena, the definition includes also fossil fuels blended with biofuels, such as corn ethanol blends of gasoline. The definition excludes renewable sources of energy production, such as hydroelectric, geothermal, solar, tidal, wind, and wood.

4. "Greenhouse Gases" or "GHGs" meanscarbon dioxide, methane, nitrous oxide, hydroflurocarbons, perfluorocarbons and sulfur hexafloride.

5. "Renewable Energy" means renewable sources of energy production, such as hydroelectric, geothermal, solar, tidal, wind, and wood.

C. Instructions

1. Preservation of Relevant Documents and Information; Spoliation. You are reminded of your obligations under law to preserve Documents and information relevant or potentially relevant to this Subpoena from destruction or loss, and of the consequences of, and penalties available for, spoliation of evidence. No agreement, written or otherwise, purporting to modify, limit or otherwise vary the terms of this Subpoena, shall be construed in any way to narrow, qualify, eliminate or otherwise diminish your aforementioned preservation obligations. Nor shall you act, in reliance upon any such agreement or otherwise, in any manner inconsistent with your preservation obligations under law. No agreement purporting to modify, limit or otherwise vary your preservation obligations under law shall be construed as in any way narrowing, qualifying, eliminating or otherwise diminishing such aforementioned preservation obligations, nor shall you act in reliance upon any such agreement, unless an Assistant Attorney General confirms or acknowledges such agreement in writing, or makes such agreement a matter of record in open court.

2. Possession, Custody, and Control. The Subpoena calls for all responsive Documents or information in your possession, custody or control. This includes, without limitation, Documents or information possessed or held by any of your officers, directors, employees, agents, representatives, divisions, affiliates, subsidiaries or Persons from whom you could request Documents or information. If Documents or information responsive to a request in this Subpoena are in your control, but not in your possession or custody, you shall promptly Identify the Person with possession or custody.

3. Documents No Longer in Your Possession. If any Document requested herein was formerly in your possession, custody or control but is no longer available, or no longer exists, you shall submit a statement in writing under oath that: (a) describes in detail the nature of such Document and its contents; (b) Identifies the Person(s) who prepared such Document and its contents; (c) Identifies all Persons who have seen or had possession of such Document; (d) specifies the date(s) on which such Document was prepared, transmitted or received; (e) specifies the date(s) on which such Document became unavailable; (f) specifies the reason why such Document is unavailable, including

without limitation whether it was misplaced, lost, destroyed or transferred; and if such Document has been destroyed or transferred, the conditions of and reasons for such destruction or transfer and the Identity of the Person(s) requesting and performing such destruction or transfer; and (g) Identifies all Persons with knowledge of any portion of the contents of the Document.

4. No Documents Responsive to Subpoena Requests. If there are no Documents responsive to any particular Subpoena request, you shall so state in writing under oath in the Affidavit of Compliance attached hereto, identifying the paragraph number(s) of the Subpoena request concerned.

5. Format of Production. You shall produce Documents, Communications, and information responsive to this Subpoena in electronic format that meets the specifications set out in Attachments 1 and 2.

6. Existing Organization of Documents to be Preserved. Regardless of whether a production is in electronic or paper format, each Document shall be produced in the same form, sequence, organization or other order or layout in which it was maintained before production, including but not limited to production of any Document or other material indicating filing or other organization. Such production shall include without limitation any file folder, file jacket, cover or similar organizational material, as well as any folder bearing any title or legend that contains no Document. Documents that are physically attached to each other in your files shall be accompanied by a notation or information sufficient to indicate clearly such physical attachment.

7. Document Numbering. All Documents responsive to this Subpoena, regardless of whether produced or withheld on ground of privilege or other legal doctrine, and regardless of whether production is in electronic or paper format, shall be numbered in the lower right corner of each page of such Document, without disrupting or altering the form, sequence, organization or other order or layout in which such Documents were maintained before production. Such number shall comprise a prefix containing the producing Person's name or an abbreviation thereof, followed by a unique, sequential, identifying document control number.

8. Privilege Placeholders. For each Document withheld from production on ground of privilege or other legal doctrine, regardless of whether a production is electronic or in hard copy, you shall insert one or more placeholder page(s) in the production bearing the same document control number(s) borne by the Document withheld, in the sequential place(s) originally occupied by the Document before it was removed from the production.

9. Privilege. If You withhold or redact any Document responsive to this Subpoena on ground of privilege or other legal doctrine, you shall submit with the Documents produced a statement in writing under oath, stating: (a) the document control number(s) of the Document withheld or redacted; (b) the type of Document; (c) the date of the Document; (d) the author(s) and recipient(s) of the Document; (e) the general subject matter of the Document; and (f) the legal ground for withholding or redacting the Document. If the legal ground for withholding or redacting the Document is attorney-

client privilege, you shall indicate the name of the attorney(s) whose legal advice is sought or provided in the Document.

10. Your Production Instructions to be Produced. You shall produce a copy of all written or otherwise recorded instructions prepared by you concerning the steps taken to respond to this Subpoena. For any unrecorded instructions given, you shall provide a written statement under oath from the Person(s) who gave such instructions that details the specific content of the instructions and any Person(s) to whom the instructions were given.

11. Cover Letter. Accompanying any production(s) made pursuant to this Subpoena, You shall include a cover letter that shall at a minimum provide an index containing the following: (a) a description of the type and content of each Document produced therewith; (b) the paragraph number(s) of the Subpoena request to which each such Document is responsive; (c) the Identity of the Custodian(s) of each such Document; and (d) the document control number(s) of each such Document.

12. Affidavit of Compliance. A copy of the Affidavit of Compliance provided herewith shall be completed and executed by all natural persons supervising or participating in compliance with this Subpoena, and you shall submit such executed Affidavit(s) of Compliance with Your response to this Subpoena.

13. Identification of Persons Preparing Production. In a schedule attached to the Affidavit of Compliance provided herewith, you shall Identify the natural person(s) who prepared or assembled any productions or responses to this Subpoena. You shall further Identify the natural person(s) under whose personal supervision the preparation and assembly of productions and responses to this Subpoena occurred. You shall further Identify all other natural person(s) able competently to testify: (a) that such productions and responses are complete and correct to the best of such person's knowledge and belief; and (b) that any Documents produced are authentic, genuine and what they purport to be.

14. Continuing Obligation to Produce. This Subpoena imposes a continuing obligation to produce the Documents and information requested. Documents located, and information learned or acquired, at any time after your response is due shall be promptly produced at the place specified in this Subpoena.

15. No Oral Modifications. No agreement purporting to modify, limit or otherwise vary this Subpoena shall be valid or binding, and you shall not act in reliance upon any such agreement, unless an Assistant Attorney General confirms or acknowledges such agreement in writing, or makes such agreement a matter of record in open court.

16. Time Period. The term "Time Period 1" as used in this Subpoena shall be from January 1, 2005 through the date of the production. The term "Time Period 2" shall be from January 1, 1977 through the date of the production.

D. Documents to be Produced

1. All Documents and Communications, within Time Period 2, Concerning any research, analysis, assessment, evaluation, modeling or other consideration performed by You, on Your behalf, or with funding provided by You Concerning the causes of Climate Change.

2. All Documents and Communications, within Time Period 2, Concerning any research, analysis, assessment, evaluation, modeling (including the competency or accuracy of such models) or other consideration performed by You, on Your behalf, or with funding provided by You, Concerning the impacts of Climate Change, including but not limited to on air, water and land temperatures, sea-level rise, ocean acidification, extreme weather events, arctic ice, permafrost and shipping channels, precipitation, flooding, water supplies, desertification, agricultural and food supplies, built environments, migration, and security concerns, including the timing of such impacts.

3. All Documents and Communications, within Time Period 2, Concerning the integration of Climate Change-related issues (including but not limited to (a) future demand for Fossil Fuels, (b) future emissions of Greenhouse Gases from Fossil Fuel extraction, production and use, (c) future demand for Renewable Energy, (d) future emissions of Greenhouse Gases from Renewable Energy extraction, production and use, (e) Greenhouse Gas emissions reduction goals, (f) the physical risks and opportunities of Climate Change, and (g) impact on Fossil Fuel reserves into Your business decisions, including but not limited to financial projections and analyses, operations projections and analyses, and strategic planning performed by You, on Your behalf, or with funding provided by You.

4. All Documents and Communications, within Time Period 1, Concerning whether and how You disclose the impacts of Climate Change (including but not limited to regulatory risks and opportunities, physical risks and opportunities, Greenhouse Gas emissions and management, indirect risks and opportunities, International Energy Agency scenarios for energy consumption, and other carbon scenarios) in Your filings with the U.S. Securities and Exchange Commission and in Your public-facing and investor-facing reports including but not limited to Your *Outlook For Energy* reports, Your *Energy Trends, Greenhouse Gas Emissions, and Alternative Energy* reports, and Your *Energy and Carbon - Managing the Risks* Report.

5. All Documents and Communications, within Time Period 1, presented to Your board of directors Concerning Climate Change

6. All Documents and Communications Concerning Climate Change, within Time Period 1, prepared by or for trade associations or industry groups, or exchanged between You and trade associations or industry groups, or sent from or to trade associations or industry groups, including but not limited to the: (i) American Petroleum Institute; (ii) Petroleum Industry Environmental Conservation Association; (IPIECA); (iii) US Oil & Gas Association; (iv) Petroleum Marketers Association of America; and (v) Empire State Petroleum Association.

7. All Documents and Communications, within Time Period 1, related to Your support or funding for organizations relating to communications or research of Climate Change, including decisions to cease funding or supporting such organizations.

8. All Documents and Communications, within Time Period 1, created, recommended, sent, and/or distributed by You, on Your behalf, or with funding provided by You, Concerning marketing, advertising, and/or communication about Climate Change including but not limited to (a) policies, procedures, practices, memoranda and similar instructive or informational materials; (b) marketing or communication strategies or plans, (c) flyers, promotional materials, and informational materials; (d) scripts, Frequently Asked Questions, Q&As, and/or other guidance documents; (e) slide presentations, power points or videos; (f) written or printed notes from or video or audio recordings of speeches, seminars or conferences; (g) all Communications with and presentations to investors; and/or (h) press releases.

9. All Documents and Communications, within Time Period 1, that are exemplars of all advertisements, flyers, promotional materials, and informational materials of any type, (including but not limited to web-postings, blog-postings, social media-postings, print advertisements, radio and television advertisements, brochures, posters, billboards, flyers and disclosures) used, published, or distributed by You, on Your behalf, or with funding provided by You, Concerning Climate Change including but not limited to (a) a copy of each print advertisement placed in New York State; (b) a DVD format copy of each television advertisement that ran in New York State; (c) an audio recording of each radio advertisement that ran in New York State and the audio portion of each internet advertisement; and (d) a printout, screenshot or copy of each advertisement, information, or communication provided via the internet, email, Facebook, Twitter, You Tube, or other electronic communications system.

10. All Documents and Communications, within Time Period 1, substantiating or refuting the claims made in the materials identified in response to Demand Nos. 4, 8 and 9.

11. All Documents and Communications sufficient to identify any New York State consumer who has complained to You, or to any state, county or municipal consumer protection agency located in New York State, Concerning Your actions with respect to Climate Change; and for each New York State consumer identified: (i) each complaint or request made by or on behalf of a consumer, (ii) all correspondence between the consumer, his or her representative, and You, (iii) recordings and notes of all conversations between the consumer and You, and (iv) the resolution of each complaint, if any.

APPENDIX 1

Electronic Document Production Specifications

Unless otherwise specified and agreed to by the Office of Attorney General, all responsive documents must be produced in LexisNexis® Concordance® format in accordance with the following instructions. Any questions regarding electronic document production should be directed to the Assistant Attorney General whose telephone number appears on the subpoena.

1. Concordance Production Components. A Concordance production consists of the following component files, which must be produced in accordance with the specifications set forth below in Section 7.

   A. ***Metadata Load File.*** A delimited text file that lists in columnar format the required metadata for each produced document.

   B. ***Extracted or OCR Text Files.*** Document-level extracted text for each produced document or document-level optical character recognition ("OCR") text where extracted text is not available.

   C. ***Single-Page Image Files.*** Individual petrified page images of the produced documents in tagged image format ("TIF"), with page-level Bates number endorsements.

   D. ***Opticon Load File.*** A delimited text file that lists the single-page TIF files for each produced document and defines (i) the relative location of the TIF files on the production media and (ii) each document break.

   E. ***Native Files.*** Native format versions of non-printable or non–print friendly produced documents.

2. Production Folder Structure. The production must be organized according to the following standard folder structure:
   - data\ (contains production load files)
   - images\ (contains single-page TIF files, with subfolder organization)
     \0001, \0002, \0003…
   - native files\ (contains native files, with subfolder organization)
     \0001, \0002, \0003…
   - text\ (contains text files, with subfolder organization)
     \0001, \0002, \0003…

3. De-Duplication. You must perform global de-duplication of stand-alone documents and email families against any prior productions pursuant to this or previously related subpoenas.

4. Paper or Scanned Documents. Documents that exist only in paper format must be scanned to single-page TIF files and OCR'd. The resulting electronic files should be

pursued in Concordance format pursuant to these instructions. You must contact the Assistant Attorney General whose telephone number appears on the subpoena to discuss (i) any documents that cannot be scanned, and (ii) how information for scanned documents should be represented in the metadata load file.

5. Structured Data. Before producing structured data, including but not limited to relational databases, transactional data, and xml pages, you must first speak to the Assistant Attorney General whose telephone number appears on the subpoena. Spreadsheets are not considered structured data.

6. Media and Encryption. All documents must be produced on CD, DVD, or hard-drive media. All production media must be encrypted with a strong password, which must be delivered independently from the production media.

7. Production File Requirements.

A. ***Metadata Load File***

- Required file format:
  - ASCII or UTF-8
  - Windows formatted CR + LF end of line characters, including full CR + LF on last record in file.
  - .dat file extension
  - Field delimiter: (ASCII decimal character 20)
  - Text Qualifier: þ (ASCII decimal character 254). Date and pure numeric value fields do not require qualifiers.
  - Multiple value field delimiter: ; (ASCII decimal character 59)
- The first line of the metadata load file must list all included fields. All required fields are listed in Attachment 2.
- Fields with no values must be represented by empty columns maintaining delimiters and qualifiers.
- ***Note:*** All documents must have page-level Bates numbering (except documents produced only in native format, which must be assigned a document-level Bates number). The metadata load file must list the beginning and ending Bates numbers (BEGDOC and ENDDOC) for each document. For document families, including but not limited to emails and attachments, compound documents, and uncompressed file containers, the metadata load file must also list the Bates range of the entire document family (ATTACHRANGE), beginning with the first Bates number (BEGDOC) of the "parent" document and ending with the last Bates number (ENDDOC) assigned to the last "child" in the document family.
- Date and Time metadata must be provided in separate columns.
- Accepted date formats:
  - mm/dd/yyyy
  - yyyy/mm/dd
  - yyyymmdd
- Accepted time formats:
  - hh:mm:ss (if not in 24-hour format, you must indicate am/pm)

- hh:mm:ss:mmm

B. ***Extracted or OCR Text Files***

- You must produce individual document-level text files containing the full extracted text for each produced document.
- When extracted text is not available (for instance, for image-only documents) you must provide individual document-level text files containing the document's full OCR text.
- The filename for each text file must match the document's beginning Bates number (BEGDOC) listed in the metadata load file.
- Text files must be divided into subfolders containing no more than 500 to 1000 files.

C. ***Single-Page Image Files (Petrified Page Images)***

- Where possible, all produced documents must be converted into single-page tagged image format ("TIF") files. See Section 7.E below for instructions on producing native versions of documents you are unable to convert.
- Image documents that exist only in non-TIF formats must be converted into TIF files. The original image format must be produced as a native file as described in Section 7.E below.
- For documents produced only in native format, you must provide a TIF placeholder that states "Document produced only in native format."
- Each single-page TIF file must be endorsed with a unique Bates number.
- The filename for each single-page TIF file must match the unique page-level Bates number (or document-level Bates number for documents produced only in native format).
- Required image file format:
  - CCITT Group 4 compression
  - 2-Bit black and white
  - 300 dpi
  - Either .tif or .tiff file extension.
- TIF files must be divided into subfolders containing no more than 500 to 1000 files. Where possible documents should not span multiple subfolders.

D. ***Opticon Load File***

- Required file format:
  - ASCII
  - Windows formatted CR + LF end of line characters
  - Field delimiter: , (ASCII decimal character 44)
  - No Text Qualifier
  - .opt file extension
- The comma-delimited Opticon load file must contain the following seven fields (as indicated below, values for certain fields may be left blank):
  - ALIAS or IMAGEKEY – the unique Bates number assigned to each page of the production.
  - VOLUME – this value is optional and may be left blank.

- RELATIVE PATH – the filepath to each single-page image file on the production media.
- DOCUMENT BREAK – defines the first page of a document. The only possible values for this field are "Y" or blank.
- FOLDER BREAK – defines the first page of a folder. The only possible values for this field are "Y" or blank.
- BOX BREAK – defines the first page of a box. The only possible values for this field are "Y" or blank.
- PAGE COUNT – this value is optional and may be left blank.

- ***Example***:
ABC00001,,IMAGES\0001\ABC00001.tif,Y,,,2
ABC00002,,IMAGES\0001\ABC00002.tif,,,,
ABC00003,,IMAGES\0002\ABC00003.tif,Y,,,1
ABC00004,,IMAGES\0002\ABC00004.tif,Y,,,1

E. ***Native Files***

- Non-printable or non–print friendly documents (including but not limited to spreadsheets, audio files, video files and documents for which color has significance to document fidelity) must be produced in their native format.
- The filename of each native file must match the document's beginning Bates number (BEGDOC) in the metadata load file and retain the original file extension.
- For documents produced only in native format, you must assign a single document-level Bates number and provide an image file placeholder that states "Document produced only in native format."
- The relative paths to all native files on the production media must be listed in the NATIVEFILE field of the metadata load file.
- Native files that are password-protected must be decrypted prior to conversion and produced in decrypted form. In cases where this cannot be achieved the document's password must be listed in the metadata load file. The password should be placed in the COMMENTS field with the format Password: <PASSWORD>.
- You may be required to supply a software license for proprietary documents produced only in native format.

APPENDIX 2

Required Fields for Metadata Load File

FIELD NAME	FIELD DESCRIPTION	FIELD VALUE EXAMPLE[1]
DOCID	Unique document reference (can be used for de-duplication).	ABC0001 or ###.######.###
BEGDOC	Bates number assigned to the first page of the document.	ABC0001
ENDDOC	Bates number assigned to the last page of the document.	ABC0002
BEGATTACH	Bates number assigned to the first page of the parent document in a document family (*i.e.*, should be the same as BEGDOC of the parent document, or PARENTDOC).	ABC0001
ENDATTACH	Bates number assigned to the last page of the last child document in a family (*i.e.*, should be the same as ENDDOC of the last child document).	ABC0008
ATTACHRANGE	Bates range of entire document family.	ABC0001 - ABC0008
PARENTDOC	BEGDOC of parent document.	ABC0001
CHILDDOCS	List of BEGDOCs of all child documents, delimited by ";" when field has multiple values.	ABC0002; ABC0003; ABC0004…
COMMENTS	Additional document comments, such as passwords for encrypted files.	
NATIVEFILE	Relative file path of the native file on the production media.	.\Native_File\Folder\...\BEGDOC.ext
SOURCE	For scanned paper records this should be a description of the physical location of the original paper record. For loose electronic files this should be the name of the file server or workstation where the files were gathered.	Company Name, Department Name, Location, Box Number…
CUSTODIAN	Owner of the document or file.	Firstname Lastname, Lastname, Firstname, User Name; Company Name, Department Name...
FROM	Sender of the email.	Firstname Lastname < FLastname @domain >

[1] Examples represent possible values and not required format unless the field format is specified in Attachment 1.

FIELD NAME	FIELD DESCRIPTION	FIELD VALUE EXAMPLE[1]
TO	All to: members or recipients, delimited by ";" when field has multiple values.	Firstname Lastname < FLastname @domain >; Firstname Lastname < FLastname @domain >; …
CC	All cc: members, delimited by ";" when field has multiple values.	Firstname Lastname < FLastname @domain >; Firstname Lastname < FLastname @domain >; …
BCC	All bcc: members, delimited by ";" when field has multiple values	Firstname Lastname < FLastname @domain >; Firstname Lastname < FLastname @domain >; …
SUBJECT	Subject line of the email.	
DATERCVD	Date that an email was received.	mm/dd/yyyy, yyyy/mm/dd, or yyyymmdd
TIMERCVD	Time that an email was received.	hh:mm:ss AM/PM or hh:mm:ss
DATESENT	Date that an email was sent.	mm/dd/yyyy, yyyy/mm/dd, or yyyymmdd
TIMESENT	Time that an email was sent.	hh:mm:ss AM/PM or hh:mm:ss
CALBEGDATE	Date that a meeting begins.	mm/dd/yyyy, yyyy/mm/dd, or yyyymmdd
CALBEGTIME	Time that a meeting begins.	hh:mm:ss AM/PM or hh:mm:ss
CALENDDATE	Date that a meeting ends.	mm/dd/yyyy, yyyy/mm/dd, or yyyymmdd
CALENDTIME	Time that a meeting ends.	hh:mm:ss AM/PM or hh:mm:ss
CALENDARDUR	Duration of a meeting in hours.	0.75, 1.5…
ATTACHMENTS	List of filenames of all attachments, delimited by ";" when field has multiple values.	AttachmentFileName.; AttachmentFileName.docx; AttachmentFileName.pdf;…
NUMATTACH	Number of attachments.	1, 2, 3, 4….
RECORDTYPE	General type of record.	IMAGE; LOOSE E-MAIL; E-MAIL; E-DOC; IMAGE ATTACHMENT; LOOSE E-MAIL ATTACHMENT; E-MAIL ATTACHMENT; E-DOC ATTACHMENT
FOLDERLOC	Original folder path of the produced document.	Drive:\Folder\...\...\
FILENAME	Original filename of the produced document.	Filename.ext
DOCEXT	Original file extension.	html, xls, pdf

FIELD NAME	FIELD DESCRIPTION	FIELD VALUE EXAMPLE[1]
DOCTYPE	Name of the program that created the produced document.	Adobe Acrobat, Microsoft Word, Microsoft Excel, Corel WordPerfect…
TITLE	Document title (if entered).	
AUTHOR	Name of the document author.	Firstname Lastname; Lastname, First Name; FLastname
REVISION	Number of revisions to a document.	18
DATECREATED	Date that a document was created.	mm/dd/yyyy, yyyy/mm/dd, or yyyymmdd
TIMECREATED	Time that a document was created.	hh:mm:ss AM/PM or hh:mm:ss
DATEMOD	Date that a document was last modified.	mm/dd/yyyy, yyyy/mm/dd, or yyyymmdd
TIMEMOD	Time that a document was last modified.	hh:mm:ss AM/PM or hh:mm:ss
FILESIZE	Original file size in bytes.	128, 512, 1024…
PGCOUNT	Number of pages per document.	1, 2, 10, 100…
IMPORTANCE	Email priority level if set.	Low, Normal, High
TIFFSTATUS	Generated by the Law Pre-discovery production tool (leave blank if inapplicable).	Y, C, E, W, N, P
DUPSTATUS	Generated by the Law Pre-discovery production tool (leave blank if inapplicable).	P
MD5HASH	MD5 hash value computed from native file (a/k/a file fingerprint).	BC1C5CA6C1945179FEE144F25F51087B
SHA1HASH	SHA1 hash value	B68F4F57223CA7DA3584BAD7ECF111B8044F8631
MSGINDEX	Email message ID	

AFFIDAVIT OF COMPLIANCE WITH SUBPOENA

State of }

County of }

I, _____, being duly sworn, state as follows:

1. I am employed by _____ in the position of _____;

2. The enclosed production of documents and responses to the Subpoena of the Attorney General of the State of New York, dated November 4, 2015 (the "Subpoena") were prepared and assembled under my personal supervision;

3. I made or caused to be made a diligent, complete and comprehensive search for all Documents and information requested by the Subpoena, in full accordance with the instructions and definitions set forth in the Subpoena;

4. The enclosed production of documents and responses to the Subpoena are complete and correct to the best of my knowledge and belief;

5. No Documents or information responsive to the Subpoena have been withheld from this production and response, other than responsive Documents or information withheld on the basis of a legal privilege or doctrine;

6. All responsive Documents or information withheld on the basis of a legal privilege or doctrine have been identified on a privilege log composed and produced in accordance with the instructions in the Subpoena;

7. The Documents contained in these productions and responses to the Subpoena are authentic, genuine and what they purport to be;

8. Attached is a true and accurate record of all persons who prepared and assembled any productions and responses to the Subpoena, all persons under whose personal supervision the preparation and assembly of productions and responses to the Subpoena occurred, and all persons able competently to testify: (a) that such productions and responses are complete and correct to the best of such person's knowledge and belief; and (b) that any Documents produced are authentic, genuine and what they purport to be; and

9. Attached is a true and accurate statement of those requests under the Subpoena as to which no responsive Documents were located in the course of the aforementioned search.

_____ _____

Signature of Affiant Date

_____

Printed Name of Affiant

****

Subscribed and sworn to before me
this 4th day of December 2015.

_____
Notary Public

My commission expires:

_____

Exhibit FF

STANFORD UNIVERSITY
GLOBAL CLIMATE & ENERGY PROJECT

About Us

The Global Climate and Energy Project (GCEP) at Stanford University seeks new solutions to one of the grand challenges of this century: supplying energy to meet the changing needs of a growing world population in a way that protects the environment.

GCEP's mission is to conduct fundamental research on technologies that will permit the development of global energy systems with significantly lower greenhouse gas emissions.

The GCEP sponsors include private companies with experience and expertise in key energy sectors. In December 2002, four sponsors – ExxonMobil, GE, Schlumberger, and Toyota – helped launch GCEP at Stanford University with plans to invest $225 million over a decade or more. DuPont and Bank of America joined the GCEP partnership in 2011 and 2013, respectively, bringing new perspectives and insights about the global energy challenge.

GCEP develops and manages a portfolio of innovative energy research programs that could lead to technologies that are efficient, environmentally benign, and cost-effective when deployed on a large scale. We currently have a number of exciting research projects taking place across disciplines throughout the Stanford campus and are collaborating with leading institutions around the world.

Objectives:
We believe that no single technology is likely to meet the energy challenges of the future on its own. It is essential that GCEP explore a range of technologies across a spectrum of globally significant energy resources and uses.

As a result, our primary objective is to build a diverse portfolio of research on technologies that will reduce greenhouse gas emissions, if successful in the marketplace.

Among GCEP's specific goals:

1. Identify promising research opportunities for low-emissions, high-efficiency energy technologies.

2. Identify barriers to the large-scale application of these new technologies.

3. Conduct fundamental research into technologies that will help to overcome these barriers and provide the basis for large-scale applications.

4. Share research results with a wide audience, including the science and engineering community, media, business, governments, and potential end-users.

Exhibit GG

Company:	EXXON MOBIL CORP
Document:	10-K • 2/28/2007
Section:	Entire Document
File Number:	001-02256
Pages:	118

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2006

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2006

or

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to
Commission File Number 1-2256

EXXON MOBIL CORPORATION

(Exact name of registrant as specified in its charter)

NEW JERSEY	13-5409005
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

5959 LAS COLINAS BOULEVARD, IRVING, TEXAS 75039-2298
(Address of principal executive offices) (Zip Code)
(972) 444-1000
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, without par value (5,693,398,774 shares outstanding at January 31, 2007)	**New York Stock Exchange**
Registered securities guaranteed by Registrant:	
SeaRiver Maritime Financial Holdings, Inc.	
Twenty-Five Year Debt Securities due October 1, 2011	**New York Stock Exchange**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ✓ No _

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes _ No ✓

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ✓ No _

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. _

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ✓ Accelerated filer _ Non-accelerated filer _

Indicate by check mark whether the registrant is a shell company (as defined by Rule 12b-2 of the Act). Yes _ No ✓

The aggregate market value of the voting stock held by non-affiliates of the registrant on June 30, 2006, the last business day of the registrant's most recently completed second fiscal quarter, based on the closing price on that date of $61.35 on the New York Stock Exchange composite tape, was in excess of $364 billion.

Documents Incorporated by Reference:
Proxy Statement for the 2007 Annual Meeting of Shareholders (Part III)

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EXXON MOBIL CORPORATION
FORM 10-K
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2006

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PART I

Item 1. *Business.*

Exxon Mobil Corporation, formerly named Exxon Corporation, was incorporated in the State of New Jersey in 1882. On November 30, 1999, Mobil Corporation became a wholly-owned subsidiary of Exxon Corporation, and Exxon changed its name to Exxon Mobil Corporation.

Divisions and affiliated companies of ExxonMobil operate or market products in the United States and most other countries of the world. Their principal business is energy, involving exploration for, and production of, crude oil and natural gas, manufacture of petroleum products and transportation and sale of crude oil, natural gas and petroleum products. ExxonMobil is a major manufacturer and marketer of commodity petrochemicals, including olefins, aromatics, polyethylene and polypropylene plastics and a wide variety of specialty products. ExxonMobil also has interests in electric power generation facilities. Affiliates of ExxonMobil conduct extensive research programs in support of these businesses.

Exxon Mobil Corporation has several divisions and hundreds of affiliates, many with names that include *ExxonMobil, Exxon, Esso* or *Mobil*. For convenience and simplicity, in this report the terms *ExxonMobil, Exxon, Esso* and *Mobil*, as well as terms like *Corporation, Company, our, we* and *its*, are sometimes used as abbreviated references to specific affiliates or groups of affiliates. The precise meaning depends on the context in question.

Throughout ExxonMobil's businesses, new and ongoing measures are taken to prevent and minimize the impact of our operations on air, water and ground. These include a significant investment in refining infrastructure and technology to manufacture clean fuels as well as projects to reduce nitrogen oxide and sulfur oxide emissions and expenditures for asset retirement obligations. ExxonMobil's 2006 worldwide environmental expenditures for all such preventative and remediation steps, including ExxonMobil's share of equity company expenditures, were about $3.2 billion, of which $1.1 billion were capital expenditures and $2.1 billion were included in expenses. The total cost for such activities is expected to remain in this range in 2007 and 2008 (with capital expenditures approximately 40 percent of the total).

Operating data and industry segment information for the Corporation are contained in the Financial Section of this report under the following: "Quarterly Information", "Note 17: Disclosures about Segments and Related Information" and "Operating Summary". Information on oil and gas reserves is contained in the "Oil and Gas Reserves" part of the "Supplemental Information on Oil and Gas Exploration and Production Activities" portion of the Financial Section of this report. Information on Company-sponsored research and development activities is contained in "Note 3: Miscellaneous Financial Information" of the Financial Section of this report.

The number of regular employees was 82.1 thousand, 83.7 thousand and 85.9 thousand at years ended 2006, 2005 and 2004, respectively. Regular employees are defined as active executive, management, professional, technical and wage employees who work full time or part time for the Corporation and are covered by the Corporation's benefit plans and programs. Regular employees do not include employees of the company-operated retail sites (CORS). The number of CORS employees was 24.3 thousand, 22.4 thousand and 19.3 thousand at years ended 2006, 2005 and 2004, respectively.

ExxonMobil maintains a website at www.exxonmobil.com. Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports filed or furnished pursuant to Section 13(a) of the Securities Exchange Act of 1934 are made available through our website as soon as reasonably practical after we electronically file or furnish the reports to the Securities and Exchange Commission. Also available on the Corporation's website are the Company's

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Corporate Governance Guidelines and Code of Ethics and Business Conduct, as well as the charters of the audit, compensation and nominating committees of the Board of Directors. All of these documents are available in print without charge to shareholders who request them. Information on our website is not incorporated into this report.

Item 1A. ***Risk Factors.***

ExxonMobil's financial and operating results are subject to a number of factors, many of which are not within the Company's control. These factors include the following:

Industry and Economic Factors: The oil and gas business is fundamentally a commodity business. This means the operations and earnings of the Corporation and its affiliates throughout the world may be significantly affected by changes in oil, gas and petrochemical prices and by changes in margins on gasoline and other refined products. Oil, gas, petrochemical and product prices and margins in turn depend on local, regional and global events or conditions that affect supply and demand for the relevant commodity. These events or conditions are generally not predictable and include, among other things:

- general economic growth rates and the occurrence of economic recessions;
- the development of new supply sources;
- adherence by countries to OPEC quotas;
- supply disruptions;
- weather, including seasonal patterns that affect regional energy demand (such as the demand for heating oil or gas in winter) as well as severe weather events (such as hurricanes) that can disrupt supplies or interrupt the operation of ExxonMobil facilities;
- technological advances, including advances in exploration, production, refining and petrochemical manufacturing technology and advances in technology relating to energy usage;
- changes in demographics, including population growth rates and consumer preferences; and
- the competitiveness of alternative hydrocarbon or other energy sources.

Under certain market conditions, factors that have a positive impact on one segment of our business may have a negative impact on another segment and vice versa.

Competitive Factors: The energy and petrochemical industries are highly competitive. There is competition within the industries and also with other industries in supplying the energy, fuel and chemical needs of both industrial and individual consumers. The Corporation competes with other firms in the sale or purchase of needed goods and services in many national and international markets and employs all methods of competition which are lawful and appropriate for such purposes.

A key component of the Corporation's competitive position, particularly given the commodity-based nature of many of its businesses, is ExxonMobil's ability to manage expenses successfully. This requires continuous management focus on reducing unit costs and improving efficiency including through technology improvements, cost control, productivity enhancements and regular reappraisal of our asset portfolio as described elsewhere in this report.

Political and Legal Factors: The operations and earnings of the Corporation and its affiliates throughout the world have been, and may in the future be, affected from time to time in varying degree by political and legal factors including:

- political instability or lack of well-established and reliable legal systems in areas where the Corporation operates;

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- other political developments and laws and regulations, such as expropriation or forced divestiture of assets, unilateral cancellation or modification of contract terms, and de-regulation of certain energy markets;
- laws and regulations related to environmental or energy security matters, including those addressing alternative energy sources and the risks of global climate change;
- restrictions on exploration, production, imports and exports;
- restrictions on the Corporation's ability to do business with certain countries, or to engage in certain areas of business within a country;
- price controls;
- tax or royalty increases, including retroactive claims;
- war or other international conflicts; and
- civil unrest.

Both the likelihood of these occurrences and their overall effect upon the Corporation vary greatly from country to country and are not predictable. A key component of the Corporation's strategy for managing political risk is geographic diversification of the Corporation's assets and operations.

Project Factors: In addition to some of the factors cited above, ExxonMobil's results depend upon the Corporation's ability to develop and operate major projects and facilities as planned. The Corporation's results will therefore be affected by events or conditions that impact the advancement, operation, cost or results of such projects or facilities, including:

- the outcome of negotiations with co-venturers, governments, suppliers, customers or others (including, for example, our ability to negotiate favorable long-term contracts with customers, or the development of reliable spot markets, that may be necessary to support the development of particular production projects);
- reservoir performance and natural field decline;
- changes in operating conditions and costs, including costs of third party equipment or services such as drilling rigs and shipping;
- security concerns or acts of terrorism that threaten or disrupt the safe operation of company facilities; and
- the occurrence of unforeseen technical difficulties (including technical problems that may delay start-up or interrupt production from an Upstream project or that may lead to unexpected downtime of refineries or petrochemical plants).

See section 1 of Item 2 of this report for a discussion of additional factors affecting future capacity growth and the timing and ultimate recovery of reserves.

Market Risk Factors: See the "Market Risks, Inflation and Other Uncertainties" portion of the Financial Section of this report for discussion of the impact of market risks, inflation and other uncertainties.

Projections, estimates and descriptions of ExxonMobil's plans and objectives included or incorporated in Items 1, 2, 7 and 7A of this report are forward-looking statements. Actual future results, including project completion dates, production rates, capital expenditures, costs and business plans could differ materially due to, among other things, the factors discussed above and elsewhere in this report.

Exhibit HH

2015

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2015

or

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission File Number 1-2256

EXXON MOBIL CORPORATION

(Exact name of registrant as specified in its charter)

NEW JERSEY	**13-5409005**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

5959 LAS COLINAS BOULEVARD, IRVING, TEXAS 75039-2298

(Address of principal executive offices) (Zip Code)

(972) 444-1000

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, without par value (4,152,756,609 shares outstanding at January 31, 2016)	**New York Stock Exchange**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☑ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☑

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☑ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☑

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☑ Accelerated filer ☐

Non-accelerated filer ☐ Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined by Rule 12b-2 of the Act). Yes ☐ No ☑

The aggregate market value of the voting stock held by non-affiliates of the registrant on June 30, 2015, the last business day of the registrant's most recently completed second fiscal quarter, based on the closing price on that date of $83.20 on the New York Stock Exchange composite tape, was in excess of $346 billion.

Documents Incorporated by Reference: Proxy Statement for the 2016 Annual Meeting of Shareholders (Part III)

EXXON MOBIL CORPORATION
FORM 10-K
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2015

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PART I

ITEM 1. BUSINESS

Exxon Mobil Corporation was incorporated in the State of New Jersey in 1882. Divisions and affiliated companies of ExxonMobil operate or market products in the United States and most other countries of the world. Their principal business is energy, involving exploration for, and production of, crude oil and natural gas, manufacture of petroleum products and transportation and sale of crude oil, natural gas and petroleum products. ExxonMobil is a major manufacturer and marketer of commodity petrochemicals, including olefins, aromatics, polyethylene and polypropylene plastics and a wide variety of specialty products. Affiliates of ExxonMobil conduct extensive research programs in support of these businesses.

Exxon Mobil Corporation has several divisions and hundreds of affiliates, many with names that include *ExxonMobil*, *Exxon*, *Esso, Mobil* or *XTO*. For convenience and simplicity, in this report the terms *ExxonMobil, Exxon, Esso, Mobil* and *XTO*, as well as terms like *Corporation*, *Company*, *our*, *we* and *its*, are sometimes used as abbreviated references to specific affiliates or groups of affiliates. The precise meaning depends on the context in question.

Throughout ExxonMobil's businesses, new and ongoing measures are taken to prevent and minimize the impact of our operations on air, water and ground. These include a significant investment in refining infrastructure and technology to manufacture clean fuels, as well as projects to monitor and reduce nitrogen oxide, sulfur oxide and greenhouse gas emissions, and expenditures for asset retirement obligations. Using definitions and guidelines established by the American Petroleum Institute, ExxonMobil's 2015 worldwide environmental expenditures for all such preventative and remediation steps, including ExxonMobil's share of equity company expenditures, were $5.6 billion, of which $3.8 billion were included in expenses with the remainder in capital expenditures. The total cost for such activities is expected to decrease to approximately $5 billion in 2016 and 2017, mainly reflecting lower project activity in Canada. Capital expenditures are expected to account for approximately 30 percent of the total.

The energy and petrochemical industries are highly competitive. There is competition within the industries and also with other industries in supplying the energy, fuel and chemical needs of both industrial and individual consumers. The Corporation competes with other firms in the sale or purchase of needed goods and services in many national and international markets and employs all methods of competition which are lawful and appropriate for such purposes.

Operating data and industry segment information for the Corporation are contained in the Financial Section of this report under the following: "Quarterly Information", "Note 18: Disclosures about Segments and Related Information" and "Operating Summary". Information on oil and gas reserves is contained in the "Oil and Gas Reserves" part of the "Supplemental Information on Oil and Gas Exploration and Production Activities" portion of the Financial Section of this report.

ExxonMobil has a long-standing commitment to the development of proprietary technology. We have a wide array of research programs designed to meet the needs identified in each of our business segments. Information on Company-sponsored research and development spending is contained in "Note 3: Miscellaneous Financial Information" of the Financial Section of this report. ExxonMobil held approximately 11 thousand active patents worldwide at the end of 2015. For technology licensed to third parties, revenues totaled approximately $158 million in 2015. Although technology is an important contributor to the overall operations and results of our Company, the profitability of each business segment is not dependent on any individual patent, trade secret, trademark, license, franchise or concession.

The number of regular employees was 73.5 thousand, 75.3 thousand, and 75.0 thousand at years ended 2015, 2014 and 2013, respectively. Regular employees are defined as active executive, management, professional, technical and wage employees who work full time or part time for the Corporation and are covered by the Corporation's benefit plans and programs. Regular employees do not include employees of the company-operated retail sites (CORS). The number of CORS employees was 2.1 thousand, 8.4 thousand, and 9.8 thousand at years ended 2015, 2014 and 2013, respectively. The decrease in CORS employees reflects the multi-year transition of the company-operated retail network in portions of Europe to a more capital-efficient Branded Wholesaler model.

Information concerning the source and availability of raw materials used in the Corporation's business, the extent of seasonality in the business, the possibility of renegotiation of profits or termination of contracts at the election of governments and risks attendant to foreign operations may be found in "Item 1A. Risk Factors" and "Item 2. Properties" in this report.

ExxonMobil maintains a website at exxonmobil.com. Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports filed or furnished pursuant to Section 13(a) of the Securities Exchange Act of 1934 are made available through our website as soon as reasonably practical after we electronically file or furnish the reports to the Securities and Exchange Commission. Also available on the Corporation's website are the Company's Corporate Governance Guidelines and Code of Ethics and Business Conduct, as well as the charters of the audit, compensation and nominating committees of the Board of Directors. Information on our website is not incorporated into this report.

ITEM 1A. RISK FACTORS

ExxonMobil's financial and operating results are subject to a variety of risks inherent in the global oil, gas, and petrochemical businesses. Many of these risk factors are not within the Company's control and could adversely affect our business, our financial and operating results, or our financial condition. These risk factors include:

Supply and Demand

The oil, gas, and petrochemical businesses are fundamentally commodity businesses. This means ExxonMobil's operations and earnings may be significantly affected by changes in oil, gas, and petrochemical prices and by changes in margins on refined products. Oil, gas, petrochemical, and product prices and margins in turn depend on local, regional, and global events or conditions that affect supply and demand for the relevant commodity. Any material decline in oil or natural gas prices could have a material adverse effect on certain of the Company's operations, especially in the Upstream segment, financial condition and proved reserves. On the other hand, a material increase in oil or natural gas prices could have a material adverse effect on certain of the Company's operations, especially in the Downstream and Chemical segments.

Economic conditions. The demand for energy and petrochemicals correlates closely with general economic growth rates. The occurrence of recessions or other periods of low or negative economic growth will typically have a direct adverse impact on our results. Other factors that affect general economic conditions in the world or in a major region, such as changes in population growth rates, periods of civil unrest, government austerity programs, or currency exchange rate fluctuations, can also impact the demand for energy and petrochemicals. Sovereign debt downgrades, defaults, inability to access debt markets due to credit or legal constraints, liquidity crises, the breakup or restructuring of fiscal, monetary, or political systems such as the European Union, and other events or conditions that impair the functioning of financial markets and institutions also pose risks to ExxonMobil, including risks to the safety of our financial assets and to the ability of our partners and customers to fulfill their commitments to ExxonMobil.

Other demand-related factors. Other factors that may affect the demand for oil, gas, and petrochemicals, and therefore impact our results, include technological improvements in energy efficiency; seasonal weather patterns, which affect the demand for energy associated with heating and cooling; increased competitiveness of alternative energy sources that have so far generally not been competitive with oil and gas without the benefit of government subsidies or mandates; and changes in technology or consumer preferences that alter fuel choices, such as toward alternative fueled or electric vehicles.

Other supply-related factors. Commodity prices and margins also vary depending on a number of factors affecting supply. For example, increased supply from the development of new oil and gas supply sources and technologies to enhance recovery from existing sources tend to reduce commodity prices to the extent such supply increases are not offset by commensurate growth in demand. Similarly, increases in industry refining or petrochemical manufacturing capacity tend to reduce margins on the affected products. World oil, gas, and petrochemical supply levels can also be affected by factors that reduce available supplies, such as adherence by member countries to OPEC production quotas and the occurrence of wars, hostile actions, natural disasters, disruptions in competitors' operations, or unexpected unavailability of distribution channels that may disrupt supplies. Technological change can also alter the relative costs for competitors to find, produce, and refine oil and gas and to manufacture petrochemicals.

Other market factors. ExxonMobil's business results are also exposed to potential negative impacts due to changes in interest rates, inflation, currency exchange rates, and other local or regional market conditions. We generally do not use financial instruments to hedge market exposures.

Government and Political Factors

ExxonMobil's results can be adversely affected by political or regulatory developments affecting our operations.

Access limitations. A number of countries limit access to their oil and gas resources, or may place resources off-limits from development altogether. Restrictions on foreign investment in the oil and gas sector tend to increase in times of high commodity prices, when national governments may have less need of outside sources of private capital. Many countries also restrict the import or export of certain products based on point of origin.

Restrictions on doing business. ExxonMobil is subject to laws and sanctions imposed by the U.S. or by other jurisdictions where we do business that may prohibit ExxonMobil or certain of its affiliates from doing business in certain countries, or restricting the kind of business that may be conducted. Such restrictions may provide a competitive advantage to competitors who may not be subject to comparable restrictions.

Lack of legal certainty. Some countries in which we do business lack well-developed legal systems, or have not yet adopted clear regulatory frameworks for oil and gas development. Lack of legal certainty exposes our operations to increased risk of adverse or unpredictable actions by government officials, and also makes it more difficult for us to enforce our contracts. In some cases these risks can be partially offset by agreements to arbitrate disputes in an international forum, but the adequacy of this remedy may still depend on the local legal system to enforce an award.

Regulatory and litigation risks. Even in countries with well-developed legal systems where ExxonMobil does business, we remain exposed to changes in law (including changes that result from international treaties and accords) that could adversely affect our results, such as:

- increases in taxes or government royalty rates (including retroactive claims);
- price controls;
- changes in environmental regulations or other laws that increase our cost of compliance or reduce or delay available business opportunities (including changes in laws related to offshore drilling operations, water use, or hydraulic fracturing);
- adoption of regulations mandating the use of alternative fuels or uncompetitive fuel components;
- adoption of government payment transparency regulations that could require us to disclose competitively sensitive commercial information, or that could cause us to violate the non-disclosure laws of other countries; and
- government actions to cancel contracts, re-denominate the official currency, renounce or default on obligations, renegotiate terms unilaterally, or expropriate assets.

Legal remedies available to compensate us for expropriation or other takings may be inadequate.

We also may be adversely affected by the outcome of litigation, especially in countries such as the United States in which very large and unpredictable punitive damage awards may occur, or by government enforcement proceedings alleging non-compliance with applicable laws or regulations.

Security concerns. Successful operation of particular facilities or projects may be disrupted by civil unrest, acts of sabotage or terrorism, and other local security concerns. Such concerns may require us to incur greater costs for security or to shut down operations for a period of time.

Climate change and greenhouse gas restrictions. Due to concern over the risk of climate change, a number of countries have adopted, or are considering the adoption of, regulatory frameworks to reduce greenhouse gas emissions. These include adoption of cap and trade regimes, carbon taxes, restrictive permitting, increased efficiency standards, and incentives or mandates for renewable energy. These requirements could make our products more expensive, lengthen project implementation times, and reduce demand for hydrocarbons, as well as shift hydrocarbon demand toward relatively lower-carbon sources such as natural gas. Current and pending greenhouse gas regulations may also increase our compliance costs, such as for monitoring or sequestering emissions.

Government sponsorship of alternative energy. Many governments are providing tax advantages and other subsidies to support alternative energy sources or are mandating the use of specific fuels or technologies. Governments are also promoting research into new technologies to reduce the cost and increase the scalability of alternative energy sources. We are conducting our own research efforts into alternative energy, such as through sponsorship of the Global Climate and Energy Project at Stanford University and research into liquid products from algae and biomass that can be further converted to transportation fuels. Our future results may depend in part on the success of our research efforts and on our ability to adapt and apply the strengths of our current business model to providing the energy products of the future in a cost-competitive manner. See “Management Effectiveness” below.

Management Effectiveness

In addition to external economic and political factors, our future business results also depend on our ability to manage successfully those factors that are at least in part within our control. The extent to which we manage these factors will impact our performance relative to competition. For projects in which we are not the operator, we depend on the management effectiveness of one or more co-venturers whom we do not control.

Exploration and development program. Our ability to maintain and grow our oil and gas production depends on the success of our exploration and development efforts. Among other factors, we must continuously improve our ability to identify the most promising resource prospects and apply our project management expertise to bring discovered resources on line as scheduled and within budget.

Project management. The success of ExxonMobil’s Upstream, Downstream, and Chemical businesses depends on complex, long-term, capital intensive projects. These projects in turn require a high degree of project management expertise to maximize efficiency. Specific factors that can affect the performance of major projects include our ability to: negotiate successfully with joint venturers, partners, governments, suppliers, customers, or others; model and optimize reservoir performance; develop markets for project outputs, whether through long-term contracts or the development of effective spot markets; manage changes in operating conditions and costs, including costs of third party equipment or services such as drilling rigs and shipping; prevent, to the extent possible, and respond effectively to unforeseen technical difficulties that could delay project startup or cause unscheduled project downtime; and influence the performance of project operators where ExxonMobil does not perform that role.

Exhibit II

THE COMMONWEALTH OF MASSACHUSETTS
OFFICE OF THE ATTORNEY GENERAL
ONE ASHBURTON PLACE
BOSTON, MASSACHUSETTS 02108

MAURA HEALEY
ATTORNEY GENERAL

TEL: (617) 727-2200
www.mass.gov/ago

CIVIL INVESTIGATIVE DEMAND

BY HAND DELIVERY

Demand No.: 2016-EPD-36

Date Issued: April 19, 2016

Issued To: Exxon Mobil Corporation
c/o Corporation Service Company, its Registered Agent
84 State Street
Boston, Massachusetts 02109

This Civil Investigative Demand ("CID") is issued to Exxon Mobil Corporation ("Exxon" or "You") pursuant to Massachusetts General Laws c. 93A, § 6, as part of a pending investigation concerning potential violations of M.G.L. c. 93A, § 2, and the regulations promulgated thereunder arising both from (1) the marketing and/or sale of energy and other fossil fuel derived products to consumers in the Commonwealth of Massachusetts (the "Commonwealth"); and (2) the marketing and/or sale of securities, as defined in M.G.L. c. 110A, § 401(k), to investors in the Commonwealth, including, without limitation, fixed- and floating rate-notes, bonds, and common stock, sold or offered to be sold in the Commonwealth.

This CID requires You to produce the documents identified in Schedule A below, pursuant to M.G.L. c. 93A, § 6(1). The Documents identified in Schedule A must be produced by May 19, 2016, by delivering them to:

I. Andrew Goldberg
Assistant Attorney General
Office of the Attorney General
One Ashburton Place
Boston, MA 02108

The documents shall be accompanied by an affidavit in the form attached hereto. AAG Goldberg and such other employees, agents, consultants, and experts of the Office of the Attorney General as needed in its discretion, shall review Your affidavit and the documents produced in conjunction with our investigation.

Demand No.: 2016-EPD-36
Date Issued: April 19, 2016
Issued To: Exxon Mobil Corporation

This CID also requires You to appear and give testimony under oath through Your authorized custodian of records that the documents You produce in response to this CID represent all of the documents called for in this CID; that You have not withheld any documents responsive to this CID; and that all of the documents You produce were records made in good faith and kept in the regular course of Your business, and it was the regular course of Your business to make and keep such records. This testimony will be taken on June 10, 2016, beginning at 9:30 a.m. at the Boston Office of the Attorney General, 100 Cambridge Street, 10th Floor, Boston, Massachusetts. The testimony will be taken by AAG Goldberg or an appropriate designee, before an officer duly authorized to administer oaths by the law of the Commonwealth, and shall proceed, day to day, until the taking of testimony is completed. The witness has the right to be accompanied by an attorney. Rule 30(c) of the Massachusetts Rules of Civil Procedure shall apply. Your attendance and testimony are necessary to conduct this investigation.

This CID also requires You to appear and give testimony under oath through one or more of Your officers, directors or managing agents, or other persons most knowledgeable concerning the subject matter areas enumerated in Schedule B, below. This testimony will be taken on June 24, 2016, beginning at 9:30 a.m. at the Boston Office of the Attorney General, 100 Cambridge Street, 10th Floor, Boston, Massachusetts. The testimony will be taken by AAG Goldberg or an appropriate designee, before an officer duly authorized to administer oaths by the law of the Commonwealth, and shall proceed, day to day, until the taking of testimony is completed. The witness has the right to be accompanied by an attorney. Rule 30(c) of the Massachusetts Rules of Civil Procedure shall apply. Your attendance and testimony are necessary to conduct this investigation.

Under G.L. c. 93A, § 6(7), You may make a motion prior to the production date specified in this notice, or within twenty-one days after this notice has been served, whichever period is shorter, in the appropriate court of law to modify or set aside this CID for good cause shown.

If the production of the documents required by this CID would be, in whole or in part, unduly burdensome, or if You require clarification of any request, please contact AAG Goldberg promptly at the phone number below.

Finally, please note that under G.L. c. 93A, §7, obstruction of this investigation, including the alteration or destruction of any responsive document after receipt of

this CID, is subject to a fine of up to five thousand dollars ($5,000.00). A copy of that provision is reprinted at Schedule C.

Issued at Boston, Massachusetts, this 19th day of April, 2016.

COMMONWEALTH OF
MASSACHUSETTS

MAURA HEALEY
ATTORNEY GENERAL

By: _____

I. Andrew Goldberg
Assistant Attorney General
Office of the Attorney General
One Ashburton Place
Boston, MA 02108
Tel. (617) 727-2200

Demand No.: 2016-EPD-36
Date Issued: April 19, 2016
Issued To: Exxon Mobil Corporation

SCHEDULE A

A. General Definitions and Rules of Construction

1. "Advertisement" means a commercial message made orally or in any newspaper, magazine, leaflet, flyer, or catalog; on radio, television, or public address system; electronically, including by email, social media, and blog post; or made in person, in direct mail literature or other printed material, or on any interior or exterior sign or display, in any window display, in any point of transaction literature, but not including on any product label, which is delivered or made available to a customer or prospective customer in any manner whatsoever.

2. "All" means each and every.

3. "Any" means any and all.

4. "And" and "or" shall be construed either disjunctively or conjunctively as necessary to bring within the scope of the CID all information or Documents that might otherwise be construed to be outside of its scope.

5. "Communication" means any conversation, discussion, letter, email, memorandum, meeting, note or other transmittal of information or message, whether transmitted in writing, orally, electronically or by any other means, and shall include any Document that abstracts, digests, transcribes, records or reflects any of the foregoing. Except where otherwise stated, a request for "Communications" means a request for all such Communications.

6. "Concerning" means, directly or indirectly, in whole or in part, relating to, referring to, describing, evidencing or constituting.

7. "Custodian" means any Person or Entity that, as of the date of this CID, maintained, possessed, or otherwise kept or controlled such Document.

8. "Document" is used herein in the broadest sense of the term and means all records and other tangible media of expression of whatever nature however and wherever created, produced or stored (manually, mechanically, electronically or otherwise), including without limitation all versions whether draft or final, all annotated or nonconforming or other copies, electronic mail ("e-mail"), instant messages, text messages, personal digital assistant or other wireless device messages, voicemail, calendars, date books, appointment books, diaries, books, papers, files, notes, confirmations, accounts statements, correspondence, memoranda, reports, records, journals, registers, analyses, plans, manuals, policies, telegrams, faxes, telexes, wires, telephone logs, telephone messages, message slips, minutes, notes or records or transcriptions of conversations or

Communications or meetings, tape recordings, videotapes, disks, and other electronic media, microfilm, microfiche, storage devices, press releases, contracts, agreements, notices and summaries. Any non-identical version of a Document constitutes a separate Document within this definition, including without limitation drafts or copies bearing any notation, edit, comment, marginalia, underscoring, highlighting, marking, or any other alteration of any kind resulting in any difference between two or more otherwise identical Documents. In the case of Documents bearing any notation or other marking made by highlighting ink, the term Document means the original version bearing the highlighting ink, which original must be produced as opposed to any copy thereof. Except where otherwise stated, a request for "Documents" means a request for all such Documents.

9. "Entity" means without limitation any corporation, company, limited liability company or corporation, partnership, limited partnership, association, or other firm or similar body, or any unit, division, agency, department, or similar subdivision thereof.

10. "Identify" or "Identity," as applied to any Document means the provision in writing of information sufficiently particular to enable the Attorney General to request the Document's production through CID or otherwise, including but not limited to: (a) Document type (letter, memo, etc.); (b) Document subject matter; (c) Document date; and (d) Document author(s), addressee(s) and recipient(s). In lieu of identifying a Document, the Attorney General will accept production of the Document, together with designation of the Document's Custodian, and identification of each Person You believe to have received a copy of the Document.

11. "Identify" or "Identity," as applied to any Entity, means the provision in writing of such Entity's legal name, any d/b/a, former, or other names, any parent, subsidiary, officers, employees, or agents thereof, and any address(es) and any telephone number(s) thereof.
12. "Identify" or "Identity," as applied to any natural person, means and includes the provision in writing of the natural person's name, title(s), any aliases, place(s) of employment, telephone number(s), e-mail address(es), mailing addresses and physical address(es).

13. "Person" means any natural person, or any Entity.

14. "Refer" means embody, refer or relate, in any manner, to the subject of the document demand.

15. "Refer or Relate to" means to make a statement about, embody, discuss, describe, reflect, identify, deal with, consist of, establish, comprise, list, or in any way pertain, in whole or in part, to the subject of the document demand.

16. "Sent" or "received" as used herein means, in addition to their usual meanings, the transmittal or reception of a Document by physical, electronic or other delivery, whether by direct or indirect means.

17. "CID" means this subpoena and any schedules, appendices, or attachments thereto.

18. The use of the singular form of any word used herein shall include the plural and vice versa. The use of any tense of any verb includes all other tenses of the verb.

19. The references to Communications, Custodians, Documents, Persons, and Entities in this CID encompass all such relevant ones worldwide.

B. Particular Definitions

1. "Exxon," "You," or "Your," means Exxon Mobil Corporation, and any present or former parents, subsidiaries, affiliates, directors, officers, partners, employees, agents, representatives, attorneys or other Persons acting on its behalf, and including predecessors or successors or any affiliates of the foregoing.

2. "Exxon Products and Services" means products and services, including without limitation petroleum and natural gas energy products and related services, offered to and/or sold by Exxon to consumers in Massachusetts.
3. "Carbon Dioxide" or "CO_2" means the naturally occurring chemical compound composed of a carbon atom covalently double bonded to two oxygen atoms that is fixed by photosynthesis into organic matter.

4. "Climate" means the statistical description in terms of the mean and variability of relevant quantities, such as surface variables, including, without limitation, temperature, precipitation, and wind, on Earth over a period of time ranging from months to thousands or millions of years. Climate is the state, including a statistical description, of the Climate System. *See* Intergovernmental Panel on Climate Change (IPCC), 2012: Glossary of terms. In: Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. A Special Report of Working Groups I and II of the IPCC. Cambridge University Press, Cambridge, UK, and New York, NY, USA (the "IPCC Glossary"), p. 557.

5. "Climate Change" means a change in the state of Earth's Climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. *See* IPCC Glossary, p. 557.

6. "Climate Model" means a numerical representation of the Climate System based on the physical, chemical, and biological properties of its components, their interactions, and feedback processes, and that accounts for all or some of its known properties. Climate models are applied as a research tool to study and simulate the climate, and for operational purposes, including monthly, seasonal, interannual, and longer-term climate predictions. *See* IPCC Glossary, p. 557.

7. "Climate Risk" means the risk that variables in the Climate System reach values that adversely affect natural and human systems and regions, including those that relate to extreme values of the climate variables such as high wind speed, high river water and sea level stages (flood), and low water stages (drought). These include, without limitation, such risks to ecosystems, human health, geopolitical stability, infrastructure, facilities, businesses, asset value, revenues, and profits, as well as the business risks associated with public policies and market changes that arise from efforts to mitigate or adapt to Climate Change.

8. "Climate Science" means the study of the Climate on Earth.
9. "Climate System" means the dynamics and interactions on Earth of five major components: atmosphere, hydrosphere, cryosphere, land surface, and biosphere. *See* IPCC Glossary, p. 557.

10. "Global Warming" means the gradual increase, observed or projected, in Earth's global surface temperature, as one of the consequences of radiative forcing caused by anthropogenic emissions.

11. "Greenhouse Gas" means a gaseous constituent of Earth's atmosphere, both natural and anthropogenic, that absorbs and emits radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere, and clouds. Water vapor (H_2O), carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), chlorofluorocarbons (CFCs), and ozone (O_3) are the primary Greenhouse Gases in the Earth's atmosphere. *See* IPCC Glossary, p. 560.

12. "Greenhouse Gas Emissions" means the exiting to the atmosphere of Greenhouse Gas.

13. "Methane" or "CH_4" means the chemical compound composed of one atom of carbon and four atoms of hydrogen. Methane is the main component of natural gas.

14. "Radiative Forcing Effect" means the influence a factor has in altering the balance of incoming and outgoing energy in the Earth-atmosphere system and is an index of the importance of the factor as a potential climate change mechanism.

15. "Security" has the same meaning as defined in M.G.L. c. 110A, § 401(k), and includes, without limitation, any fixed- and floating rate-notes, bonds, and common stock, available to investors for purchase by Massachusetts residents.

16. "Sustainable Development" means development that meets the needs of the present without compromising the ability of future generations to meet their own needs. *See* IPCC Glossary, p. 564.

17. "Sustainability Reporting" means the practice of measuring, disclosing and being accountable to internal and external stakeholders for organizational performance towards the goals of Sustainable Development.

18. "Acton Institute for the Study of Religion and Liberty" or "Acton Institute" means the nonprofit organization by that name. Acton Institute is located in Grand Rapids, Michigan.

19. "American Enterprise Institute for Public Policy Research" or "AEI" means the nonprofit public policy organization by that name. AEI is based in Washington, D.C.

20. "Americans for Prosperity" means the nonprofit advocacy group by that name. Americans for Prosperity is based in Arlington, Virginia.

21. "American Legislative Exchange Council" or "ALEC" means the nonprofit organization by that name consisting of state legislator and private sector members. ALEC is based in in Arlington, Virginia.

22. "American Petroleum Institute" or "API" means the oil and gas industry trade association by that name. API is based in Washington, D.C.

23. "Beacon Hill Institute at Suffolk University" means the research arm of the Department of Economics at Suffolk University in Boston, Massachusetts, by that name.

24. "Center for Industrial Progress" or "CIP" means the for profit organization by that name. CIP is located in Laguna Hills, California.

25. "Competitive Enterprise Institute" or "CEI" means the nonprofit public policy organization by that name. CEI is based in Washington, D.C.

26. "George C. Marshall Institute" means the nonprofit public policy organization by that name. George C. Marshall Institute is based in Arlington, Virginia.

27. "The Heartland Institute" means the nonprofit public policy organization by that name. The Heartland Institute is based in Arlington Heights, Illinois.

28. "The Heritage Foundation" means the nonprofit public policy organization by that name. The Heritage Foundation is based in Washington, D.C.

29. "Mercatus Center at George Mason University" means the university-based nonprofit public policy organization by that name. Mercatus Center at George Mason University is based in Arlington, Virginia.

C. Instructions

1. Preservation of Relevant Documents and Information; Spoliation. You are reminded of your obligations under law to preserve Documents and information relevant or potentially relevant to this CID from destruction or loss, and of the consequences of, and penalties available for, spoliation of evidence. No agreement, written or otherwise, purporting to modify, limit or otherwise vary the terms of this CID, shall be construed in any way to narrow, qualify, eliminate or otherwise diminish your aforementioned preservation obligations. Nor shall you act, in reliance upon any such agreement or otherwise, in any manner inconsistent with your preservation obligations under law. No agreement purporting to modify, limit or otherwise vary your preservation obligations under law shall be construed as in any way narrowing, qualifying, eliminating or otherwise diminishing such aforementioned preservation obligations, nor shall you act in reliance upon any such agreement, unless an Assistant Attorney General confirms or acknowledges such agreement in writing, or makes such agreement a matter of record in open court.

2. Possession, Custody, and Control. The CID calls for all responsive Documents or information in your possession, custody or control. This includes, without limitation, Documents or information possessed or held by any of your officers, directors, employees, agents, representatives, divisions, affiliates, subsidiaries or Persons from whom you could request Documents or information. If Documents or information responsive to a request in this CID are in your control, but not in your possession or custody, you shall promptly Identify the Person with possession or custody.

3. Documents No Longer in Your Possession. If any Document requested herein was formerly in your possession, custody or control but is no longer available, or no longer exists, you shall submit a statement in writing under oath that: (a) describes

in detail the nature of such Document and its contents; (b) Identifies the Person(s) who prepared such Document and its contents; (c) Identifies all Persons who have seen or had possession of such Document; (d) specifies the date(s) on which such Document was prepared, transmitted or received; (e) specifies the date(s) on which such Document became unavailable; (f) specifies the reason why such Document is unavailable, including without limitation whether it was misplaced, lost, destroyed or transferred; and if such Document has been destroyed or transferred, the conditions of and reasons for such destruction or transfer and the Identity of the Person(s) requesting and performing such destruction or transfer; and (g) Identifies all Persons with knowledge of any portion of the contents of the Document.

4. No Documents Responsive to CID Requests. If there are no Documents responsive to any particular CID request, you shall so state in writing under oath in the Affidavit of Compliance attached hereto, identifying the paragraph number(s) of the CID request concerned.

5. Format of Production. You shall produce Documents, Communications, and information responsive to this CID in electronic format that meets the specifications set out in Schedule D.

6. Existing Organization of Documents to be Preserved. Regardless of whether a production is in electronic or paper format, each Document shall be produced in the same form, sequence, organization or other order or layout in which it was maintained before production, including but not limited to production of any Document or other material indicating filing or other organization. Such production shall include without limitation any file folder, file jacket, cover or similar organizational material, as well as any folder bearing any title or legend that contains no Document. Documents that are physically attached to each other in your files shall be accompanied by a notation or information sufficient to indicate clearly such physical attachment.

7. Document Numbering. All Documents responsive to this CID, regardless of whether produced or withheld on ground of privilege or other legal doctrine, and regardless of whether production is in electronic or paper format, shall be numbered in the lower right corner of each page of such Document, without disrupting or altering the form, sequence, organization or other order or layout in which such Documents were maintained before production. Such number shall comprise a prefix containing the producing Person's name or an abbreviation thereof, followed by a unique, sequential, identifying document control number.

8. Privilege Placeholders. For each Document withheld from production on ground of privilege or other legal doctrine, regardless of whether a production is electronic or in hard copy, you shall insert one or more placeholder page(s) in the

production bearing the same document control number(s) borne by the Document withheld, in the sequential place(s) originally occupied by the Document before it was removed from the production.

9. Privilege. If You withhold or redact any Document responsive to this CID of privilege or other legal doctrine, you shall submit with the Documents produced a statement in writing under oath, stating: (a) the document control number(s) of the Document withheld or redacted; (b) the type of Document; (c) the date of the Document; (d) the author(s) and recipient(s) of the Document; (e) the general subject matter of the Document; and (f) the legal ground for withholding or redacting the Document. If the legal ground for withholding or redacting the Document is attorney-client privilege, you shall indicate the name of the attorney(s) whose legal advice is sought or provided in the Document.

10. Your Production Instructions to be Produced. You shall produce a copy of all written or otherwise recorded instructions prepared by you concerning the steps taken to respond to this CID. For any unrecorded instructions given, you shall provide a written statement under oath from the Person(s) who gave such instructions that details the specific content of the instructions and any Person(s) to whom the instructions were given.

11. Cover Letter. Accompanying any production(s) made pursuant to this CID, You shall include a cover letter that shall at a minimum provide an index containing the following: (a) a description of the type and content of each Document produced therewith; (b) the paragraph number(s) of the CID request to which each such Document is responsive; (c) the Identity of the Custodian(s) of each such Document; and (d) the document control number(s) of each such Document.

12. Affidavit of Compliance. A copy of the Affidavit of Compliance provided herewith shall be completed and executed by all natural persons supervising or participating in compliance with this CID, and you shall submit such executed Affidavit(s) of Compliance with Your response to this CID.

13. Identification of Persons Preparing Production. In a schedule attached to the Affidavit of Compliance provided herewith, you shall Identify the natural person(s) who prepared or assembled any productions or responses to this CID. You shall further Identify the natural person(s) under whose personal supervision the preparation and assembly of productions and responses to this CID occurred. You shall further Identify all other natural person(s) able competently to testify: (a) that such productions and responses are complete and correct to the best of such person's knowledge and belief; and (b) that any Documents produced are authentic, genuine and what they purport to be.

14. Continuing Obligation to Produce. This CID imposes a continuing obligation to produce the Documents and information requested. Documents located, and information learned or acquired, at any time after your response is due shall be promptly produced at the place specified in this CID.

15. No Oral Modifications. No agreement purporting to modify, limit or otherwise vary this CID shall be valid or binding, and you shall not act in reliance upon any such agreement, unless an Assistant Attorney General confirms or acknowledges such agreement in writing, or makes such agreement a matter of record in open court.

16. Time Period. Except where otherwise stated, the time period covered by this CID shall be from April 1, 2010, through the date of the production.

D. **Documents to be Produced**

1. For the time period from January 1, 1976, through the date of this production, Documents and Communications concerning Exxon's development, planning, implementation, review, and analysis of research efforts to study CO_2 emissions (including, without limitation, from fossil fuel extraction, production, and use), and the effects of these emissions on the Climate, including, without limitation, efforts by Exxon to:

   (a) analyze the absorption rate of atmospheric CO_2 in the oceans by developing and using Climate Models;

   (b) measure atmospheric and oceanic CO_2 levels (including, without limitation, through work conducted on Exxon's *Esso Atlantic* tanker);

   (c) determine the source of the annual CO_2 increment that has been increasing over time since the Industrial Revolution by measuring changes in the isotopic ratios of carbon and the distribution of radon in the ocean; and/or

   (d) assess the financial costs and environmental consequences associated with the disposal of CO_2 and hydrogen sulfide gas from the development of offshore gas from the seabed of the South China Sea off Natuna Island, Indonesia.

2. For the time period from January 1, 1976, through the date of this production, Documents and Communications concerning papers prepared, and presentations given, by James F. Black, at times Scientific Advisor in the Products Research Division of Exxon Research and Engineering, author of, among others, the paper *The Greenhouse Effect*, produced in or around 1978.

3. For the time period from January 1, 1976, through the date of this production, Documents and Communications concerning the paper *CO_2 Greenhouse Effect A Technical Review*, dated April 1, 1982, prepared by the Coordination and Planning Division of Exxon Research and Engineering Company.

4. For the time period from January 1, 1976, through the date of this production, Documents and Communications concerning the paper *CO_2 Greenhouse and Climate Issues*, dated March 28, 1984, prepared by Henry Shaw, including all Documents:

   (a) forming the basis for Exxon's projection of a 1.3 to 3.1 degree Celsius average temperature rise by 2090 due to increasing CO_2 emissions and all Documents describing the basis for Exxon's conclusions that a 2 to 3 degree Celsius increase in global average temperature could:

   - Be "amplified to about 10 degrees C at the poles," which could cause "polar ice melting and a possible sea-level rise of 0.7 meter[sic] by 2080"
   - Cause redistribution of rainfall
   - Cause detrimental health effects
   - Cause population migration

   (b) forming the basis for Exxon's conclusion that society could "avoid the problem by sharply curtailing the use of fossil fuels."

5. Documents and Communications with any of Acton Institute, AEI, Americans for Prosperity, ALEC, API, Beacon Hill Institute at Suffolk University, CEI, CIP, George C. Marshall Institute, The Heartland Institute, The Heritage Foundation, and/or Mercatus Center at George Mason University, concerning Climate Change and/or Global Warming, Climate Risk, Climate Science, and/or communications regarding Climate Science by fossil fuel companies to the media and/or to investors or consumers, including Documents and Communications relating to the funding by Exxon of any of those organizations.

6. For the time period from September 1, 1997, through the date of this production, Documents and Communications concerning the API's draft *Global Climate Science Communications Plan* dated in or around 1998.

7. For the time period from January 1, 2007, through the date of this production, Documents and Communications concerning Exxon's awareness of, and/or response to, the Union of Concerned Scientists report *Smoke, Mirrors & Hot Air: How ExxonMobil Uses Big Tobacco's Tactics to Manufacture Uncertainty on Climate Science*, dated January 2007.

8. For the time period from April 1, 1997, through the date of this production, Documents and Communications concerning the decision making by Exxon in preparing, and substantiation of, the following statements in the remarks *Energy – key to growth and a better environment for Asia-Pacific nations*, by then Chairman Lee R. Raymond to the World Petroleum Congress, Beijing, People's Republic of China, 10/13/97 (the "Raymond WPC Statements"):

   - It is highly unlikely that the temperature in the middle of the next century will be significantly affected whether policies are enacted now or 20 years from now. (Raymond WPC Statements, p. 11)

   - Forecasts of future warming come from computer models that try to replicate Earth's past climate and predict the future. They are notoriously inaccurate. None can do it without significant overriding adjustments. (Raymond WPC Statements, p. 10)

   - Proponents of the agreements [that could result from the Kyoto Climate Change Conference in December 1997] say they are necessary because burning fossil fuels causes global warming. Many people – politicians and the public alike – believe that global warming is a rock-solid certainty. But it's not. (Raymond WPC Statements, p. 8)

   - To achieve this kind of reduction in carbon dioxide emissions most advocates are talking about, governments would have to resort to energy rationing administered by a vast international bureaucracy responsible to no one. (Raymond WPC Statements, p. 10)

   - We also have to keep in mind that most of the greenhouse effect comes from natural sources, especially water vapor. Less than a quarter is from carbon dioxide, and, of this, only four percent of the carbon dioxide entering the atmosphere is due to human activities – 96 percent comes from nature. (Raymond WPC Statements, p. 9)

9. Documents and Communications concerning Chairman Rex W. Tillerson's June 27, 2012, address to the Council on Foreign Relations, including those sufficient to document the factual basis for the following statements:

   - Efforts to address climate change should focus on engineering methods to adapt to shifting weather patterns and rising sea levels rather than trying to eliminate use of fossil fuels.

   - Humans have long adapted to change, and governments should create policies to cope with the Earth's rising temperatures.

- Changes to weather patterns that move crop production areas around – we'll adapt to that. It's an engineering problem and it has engineering solutions.

- Issues such as global poverty [are] more pressing than climate change, and billions of people without access to energy would benefit from oil and gas supplies.

10. Documents and Communications concerning Chairman Tillerson's statements regarding Climate Change and Global Warming, on or about May 30, 2013, to shareholders at an Exxon shareholder meeting in Dallas, Texas, including Chairman Tillerson's statement "What good is it to save the planet if humanity suffers?"

11. Documents and Communications concerning Chairman Tillerson's speech *Unleashing Innovation to Meet Our Energy and Environmental Needs*, presented to the 36th Annual Oil and Money Conference in London, England, 10/7/15 (the "2015 Oil and Money Conference Speech"), including Documents sufficient to demonstrate the factual basis for Chairman Tillerson's representation that Exxon's scientific research on Climate Change, begun in the 1970s, "led to work with the U.N.'s Intergovernmental Panel on Climate Change and collaboration with academic institutions and to reaching out to policymakers and others, who sought to advance scientific understanding and policy dialogue."

12. Documents and Communications concerning any public statement Chairman Tillerson has made about Climate Change or Global Warming from 2012 to present.

13. Documents and Communications concerning changes in the design, construction, or operation of any Exxon facility to address possible variations in sea level and/or other variables, such as temperature, precipitation, timing of sea ice formation, wind speed, and increased storm intensity, associated with Climate Change, including but not limited to:

    (a) adjustments to the height of Exxon's coastal and/or offshore drilling platforms; and

    (b) adjustments to any seasonal activity, including shipping and the movement of vehicles.

14. Documents and Communications concerning any research, analysis, assessment, evaluation, Climate Modeling or other consideration performed by Exxon, or with funding provided by Exxon, concerning the costs for CO_2 mitigation, including,

without limitation, concerning the 2014 Exxon report to shareholders *Energy and Carbon – Managing the Risks* (the "2014 Managing the Risks Report").

15. Documents and Communications substantiating or refuting the following claims in the 2014 Managing the Risks Report:

- [B]y 2030 for the 450ppm CO2 stabilization pathway, the average American household would face an added CO2 cost of almost $2,350 per year for energy, amounting to about 5 percent of total before-tax median income. (p. 9)
- These costs would need to escalate steeply over time, and be more than double the 2030 level by mid-century. (p. 9)
- Further, in order to stabilize atmospheric GHG concentrations, these CO2 costs would have to be applied across both developed and undeveloped countries. (p. 9)
- [W]e see world GDP growing at a rate that exceeds population growth through [the year 2040], almost tripling in size from what it was globally in 2000 [fn. omitted]. It is largely the poorest and least developed of the world's countries that benefit most from this anticipated growth. However, this level of GDP growth requires more accessible, reliable and affordable energy to fuel growth, and it is vulnerable populations who would suffer most should that growth be artificially constrained. (pp. 3 – 4)
- [W]e anticipate renewables growing at the fastest pace among all sources through [the year 2040]. However, because they make a relatively small contribution compared to other energy sources, renewables will continue to comprise about 5 percent of the total energy mix by 2040. Factors limiting further penetration of renewables include scalability, geographic dispersion, intermittency (in the case of solar and wind), and cost relative to other sources. (p. 6)
- In assessing the economic viability of proved reserves, we do not believe a scenario consistent with reducing GHG emissions by 80 percent by 2050, as suggested by the "low carbon scenario," lies within the "reasonably likely to occur" range of planning assumptions, since we consider the scenario highly unlikely. (p. 16)

16. Documents and Communications that formed the basis for the following statements in Exxon's January 26, 2016, press release on Exxon's 2016 Energy Outlook:

- In 2040, oil and natural gas are expected to make up nearly 60 percent of global supplies, while nuclear and renewables will be approaching 25 percent. Oil will provide one third of the world's energy in 2040, remaining the No. 1 source of fuel, and natural gas will move into second place.

- ExxonMobil's analysis and those of independent agencies confirms our long-standing view that all viable energy sources will be needed to meet increasing demand.

- The Outlook projects that global energy-related carbon dioxide emissions will peak around 2030 and then start to decline. Emissions in OECD nations are projected to fall by about 20 percent from 2014 to 2040.

17. Documents and Communications concerning any research, study, and/or evaluation by Exxon and/or any other fossil fuel company regarding the Climate Change Radiative Forcing Effect of natural gas (Methane), and potential regulation of Methane as a Greenhouse Gas.

18. Documents and Communications concerning Exxon's internal consideration of public relations and marketing decisions for addressing consumer perceptions regarding Climate Change and Climate Risks in connection with Exxon's offering and selling Exxon Products and Services to consumers in Massachusetts.

19. Documents and Communications concerning the drafting and finalizing of text, including all existing drafts of such text, concerning Greenhouse Gas Emissions and the issue of Climate Change or Global Warming filed with the U.S. Securities and Exchange Commission (the "SEC") by Exxon, including, without limitation, Exxon's Notices of Meeting; Form 10-Ks; Form 10-Qs; Form 8-Ks; Prospectuses; Prospectus Supplements; and Free Will Prospectuses; and/or contained in any offering memoranda and offering circulars from filings with the SEC under Regulation D (17 CFR § 230.501, et seq.).

20. Documents and Communications concerning Exxon's consideration of public relations and marketing decisions for addressing investor perceptions regarding Climate Change, Climate Risk, and Exxon's future profitability in connection with Exxon's offering and selling Securities in Massachusetts.

21. Documents and Communications related to Exxon's efforts in 2015 and 2016 to address any shareholder resolutions related to Climate Change, Global Warming, and how efforts to reduce Greenhouse Gas Emissions will affect Exxon's ability to operate profitably.

22. For the time period from January 1, 2006, through the date of this production, Documents and Communications concerning Exxon's development of its program

for Sustainability Reporting addressing Climate Change and Climate Risk, including, without limitation, regarding Exxon's annual "Corporate Citizenship Report" and Exxon's "Environmental Aspects Guide."

23. Documents and Communications concerning information exchange among Exxon and other companies and/or industry groups representing energy companies, regarding marketing of energy and/or fossil fuel products to consumers in light of public perceptions regarding Climate Change and Climate Risk.

24. Exemplars of all advertisements, flyers, promotional materials, and informational materials of any type, including but not limited to web-postings, blog-posts, social media-postings, print ads (including ads on op-ed pages of newspapers), radio and television advertisements, brochures, posters, billboards, flyers and disclosures used by or for You, Your employees, agents, franchisees or independent contractors to solicit or market Exxon Products and Services in Massachusetts, including but not limited to:

- A copy of each print advertisement placed in the Commonwealth;
- A DVD format copy of each television advertisement that ran in the Commonwealth;
- An audio recording of each radio advertisement and audio portion of each internet advertisement;
- A copy of each direct mail advertisement, brochure, or other written promotional materials;
- A printout, screenshot or copy of each advertisement, information, or communication provided via the internet, email, Facebook, Twitter, You Tube, or other electronic communications system; and/or
- A copy of each point-of-sale promotional material used by You or on Your behalf.

25. Documents and Communications sufficient to show where each of the exemplars in Demand No. 24 was placed and the intended or estimated consumers thereof, including, where appropriate, the number of hits on each internet page and all Commonwealth Internet Service Providers viewing same.

26. Documents and Communications substantiating the claims made in the advertisements, flyers, promotional materials, and informational materials identified in response to Demand Nos. 22 through 24.

27. Documents and Communications concerning Your evaluation or review of the impact, success or effectiveness of each Document referenced in Demand Nos. 22 through 24, including but not limited to Documents discussing or referring in any way to: (a) the effects of advertising campaigns or communications; (b) focus groups; (c) copy tests; (d) consumer perception; (e) market research; (f) consumer

research; and/or (g) other study or survey or the reactions, perceptions, beliefs, attitudes, wishes, needs, or understandings of potential consumers of Exxon Products and Services in light of public perceptions of Climate Change, Greenhouse Gas Emissions, and Climate Risk.

28. Documents sufficient to show Exxon's organizational structure and leadership over time, including but not limited to organizational charts, reflecting all Exxon Entities in any way involved in:

    (a) the marketing, advertisement, solicitation, promotion, and/or sale of Exxon Products and Services to consumers in the Commonwealth; and/or

    (b) the marketing, advertisement, solicitation, promotion, and/or sale to investors of Exxon Securities in the Commonwealth.

29. Documents and Communications sufficient to identify each agreement entered into on or after April 1, 2010, through the present, between and among Exxon and the Commonwealth of Massachusetts, its agencies, and/or its political subdivisions, for Exxon to provide Exxon Products and Services in Massachusetts.

30. Documents sufficient to identify all claims, lawsuits, court proceedings and/or administrative or other proceedings against You in any jurisdiction within the United States concerning Climate Change and relating to Your solicitation of consumers of Exxon Products and Services and/or relating to Your solicitation of consumers of Exxon Securities, including all pleadings and evidence in such proceedings and, if applicable, the resolution, disposition or settlement of any such matters.

31. Documents sufficient to identify and describe any discussion or consideration of disclosing in any materials filed with the SEC or provided to potential or existing investors (e.g., in prospectuses for debt offerings) information or opinions concerning the environmental impacts of Greenhouse Gas Emissions, including, without limitation, the risks associated with Climate Change, and Documents sufficient to identify all Persons involved in such consideration.

32. Transcripts of investor calls, conferences or presentations given by You at which any officer or director spoke concerning the environmental impacts of Greenhouse Gas Emissions, including, without limitation, the risks associated with Climate Change.

33. Documents and Communications concerning any subpoena or other demand for production of documents or for witness testimony issued to Exxon by the New

York State Attorney General's Office concerning Climate Change and Your marketing of Exxon Products and Services and/or Exxon Securities, including, through the date of Your production in response to this CID, all Documents produced to the New York State Attorney General's Office pursuant to any such subpoena or demand.

34. Documents sufficient to Identify all other federal or state law enforcement or regulatory agencies that have issued subpoenas or are otherwise currently investigating You concerning Your marketing of Exxon Products and Services to consumers and/or of Exxon Securities to investors.

35. Documents sufficient to Identify any Massachusetts consumer who has complained to You, or to any Massachusetts state or local consumer protection agency, concerning Your actions with respect to Climate Change, and for each such consumer identified, documents sufficient to identify each such complaint; each correspondence between You and such consumer or such consumer's representative; any internal notes or recordings regarding such complaint; and the resolution, if any, of each such complaint.

36. Documents and communications that disclose Your document retention policies in effect between January 1, 1976 and the date of this production.

37. Documents sufficient to Identify Your officers, directors and/or managing agents, or other persons most knowledgeable concerning the subject matter areas enumerated in Schedule B, below.

38. Documents sufficient to identify all natural persons involved in the preparation of Your response to this CID.

Demand No.: 2016-EPD-36
Date Issued: April 19, 2016
Issued To: Exxon Mobil Corporation

SCHEDULE B

Pursuant to the terms of this CID, you are commanded to produce one or more witnesses at the above-designated place and time, or any agreed-upon adjourned place and time, who is or are competent to testify as to the following subject matter areas:

1. Your compliance with Massachusetts General Law Chapter 93A, § 2, and the regulations promulgated thereunder concerning, the marketing, advertising, soliciting, promoting, and communicating or sale of: (1) Exxon Products and Services in the Commonwealth and/or to Massachusetts residents; and (2) Securities in the Commonwealth and/or to Massachusetts residents.

2. The marketing, advertising, soliciting, promoting, and communicating or sale of Exxon Products and Services in the Commonwealth and/or to Massachusetts residents, including their environmental impacts with respect to Greenhouse Gas Emission, Climate Change and/or Climate Risk.

3. The marketing, advertising, soliciting, promoting, and communicating or sale of Securities in the Commonwealth and/or to Massachusetts residents, including as to Exxon's disclosures of risks to its business related to Climate Change.

4. All topics covered in the demands above.

5. Your recordkeeping methods for the demands above, including what information is kept and how it is maintained.

6. Your compliance with this CID.

Demand No.: 2016-EPD-36
Date Issued: April 19, 2016
Issued To: Exxon Mobil Corporation

SCHEDULE C

CHAPTER 93A. REGULATION OF BUSINESS PRACTICES FOR CONSUMERS PROTECTION

Chapter 93A: Section 7. Failure to appear or to comply with notice

Section 7. A person upon whom a notice is served pursuant to the provisions of section six shall comply with the terms thereof unless otherwise provided by the order of a court of the commonwealth. Any person who fails to appear, or with intent to avoid, evade, or prevent compliance, in whole or in part, with any civil investigation under this chapter, removes from any place, conceals, withholds, or destroys, mutilates, alters, or by any other means falsifies any documentary material in the possession, custody or control of any person subject to any such notice, or knowingly conceals any relevant information, shall be assessed a civil penalty of not more than five thousand dollars.

The attorney general may file in the superior court of the county in which such person resides or has his principal place of business, or of Suffolk county if such person is a nonresident or has no principal place of business in the commonwealth, and serve upon such person, in the same manner as provided in section six, a petition for an order of such court for the enforcement of this section and section six. Any disobedience of any final order entered under this section by any court shall be punished as a contempt thereof.

Demand No.: 2016-EPD-36
Date Issued: April 19, 2016
Issued To: Exxon Mobil Corporation

SCHEDULE D

See attached "Office of the Attorney General - Data Delivery Specification."

Demand No.: 2016-EPD-36
Date Issued: April 19, 2016
Issued To: Exxon Mobil Corporation

AFFIDAVIT OF COMPLIANCE WITH CIVIL INVESTIGATIVE DEMAND

State of

County of

I, _____, being duly sworn, state as follows:

1. I am employed by _____ in the position of _____;

2. The enclosed production of documents and responses to Civil Investigative Demand 2016-EPD-36 of the Attorney General of the Commonwealth of Massachusetts, dated April 19, 2016 (the "CID") were prepared and assembled under my personal supervision;

3. I made or caused to be made a diligent, complete and comprehensive search for all Documents and information requested by the CID, in full accordance with the instructions and definitions set forth in the CID;

4. The enclosed production of documents and responses to the CID are complete and correct to the best of my knowledge and belief;

5. No Documents or information responsive to the CID have been withheld from this production and response, other than responsive Documents or information withheld on the basis of a legal privilege or doctrine;

6. All responsive Documents or information withheld on the basis of a legal privilege or doctrine have been identified on a privilege log composed and produced in accordance with the instructions in the CID;

7. The Documents contained in these productions and responses to the CID are authentic, genuine and what they purport to be;

8. Attached is a true and accurate record of all persons who prepared and assembled any productions and responses to the CID, all persons under whose personal supervision the preparation and assembly of productions and responses to the CID occurred, and all persons able competently to testify: (a) that such productions and responses are complete and correct to the best of such person's knowledge and belief; and (b) that any Documents produced are authentic, genuine and what they purport to be; and

9. Attached is a true and accurate statement of those requests under the CID as to

Demand No.: 2016-EPD-36
Date Issued: April 19, 2016
Issued To: Exxon Mobil Corporation

which no responsive Documents were located in the course of the aforementioned search.

_____ _____
Signature of Affiant Date

_____
Printed Name of Affiant

Subscribed and sworn to before me

this __ day of _____ 2016.

_____
Notary Public
My commission expires:

_____

Office of the Attorney General - Data Delivery Specification
ONE – Production Load File

I. General

1. Images produced to the Office of the Attorney General should be single page series IV TIFF images, 300 dpi or better quality. TIFFs may be Black & White or color.
2. Bates Numbers should be placed in the lower right hand corner unless to do so would obscure the underlying image. In such cases, the Bates number should be placed as near to that position as possible while preserving the underlying image. Bates numbers should contain no spaces, hyphens or underscores. Example: AG0000000001.
3. Spreadsheets and Powerpoint ESI should be produced as native ESI and name for the bates number associated with the first page of the item. If the item has a confidentiality designation, please *DO NOT* append it to the bates numbered file name. The designation should be stored in a field in the DAT.
4. For any ESI that exists in encrypted format or is password-protected, instructions on means for access should be provided with the production to the AGO. (For example, by supplying passwords.)
5. All records should include at least the following fields of created data:
   a. Beginning Bates Number (where TIFF Images are produced)
   b. Ending Bates Number
   c. Beginning Attachment Range
   d. Ending Attachment Range
   e. RemovedFrom: If records were globally deduplicated, this field should contain a concatenated list of all custodians or sources which originally held the item.
   f. MD5 Hash or other hash value
   g. Custodian / Source
   h. Original file path or folder structure
   i. FamilyID
   j. Path/Link to natives
   k. Path/Link to text files (***do not produce inline text in the dat file***)
   l. Redacted – Bit Character field (1 or 0 where 1=Yes and 0=No)
   m. Production date
   n. Volume name
   o. Confidentiality or other treatment stamps
6. Email should be produced with at least the following fields of metadata:
   a. TO
   b. FROM
   c. CC
   d. BCC
   e. Subject
   f. Path to text file (***do not produce inline text in the dat file***)

Rev. 09-24-2015

g. Sent Date (dates and times must be stored in separate fields)
h. Sent Time (dates and times must be stored in separate fields and without time zones)
i. File extension (.txt, .msg, etc.)
j. Attachment count.

7. eFiles should be produced with at least the following individual fields of metadata:
   a. Author
   b. CreateDate (dates and times must be stored in separate fields)
   c. CreateTime (dates and times must be stored in separate fields with no time zones or am/pm)
   d. LastModifiedDate (dates and times must be stored in separate fields)
   e. LastModifiedTime (dates and times must be stored in separate fields with no time zones or am/pm).
8. Deduplication (Removed From data field)
   a. If the producing entity wishes to deduplicate, exact hash value duplicates may be removed on a global basis if the producing entity provides a field of created data for each deduplicated item that provides a concatenated list of all custodians or other sources where the item was original located. This list should be provided in the RemovedFrom data field.
   b. Any other form of deduplication must be approved in advance by the Office of the Attorney General.

II. File Types and Load File Requirements

a. File Types

Data: Text, images and native files should each be delivered as subfolders in a folder named "DATA". See screen shot "Example Production Deliverable."

- Images: Single page TIFF images delivered in a folder named "IMAGES."
- Text: Multipage text files (one text file per document), delivered in a folder named "TEXT."
- Natives: Delivered in a folder named 'NATIVES".

Load Files: Concordance format data load file and Opticon format image load file should be delivered in a folder named LOAD (at the same level as the folder DATA in the structure). See screen shot "Example Production Deliverable."

Office of the Attorney General - Data Delivery Specification
ONE – Production Load File

- Example Production Deliverable
  - VOL001
    - DATA
      - IMAGES
      - NATIVES
      - TEXT
    - LOAD

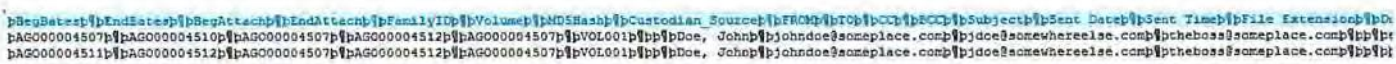
b. **Fields to be Produced in ONE Data Load File – Concordance Format**

Field Name	Description/Notes
BegBates	Starting Bates Number for document
EndBates	Ending Bates Number for document
BegAttach	Starting Bates Number of Parent document
EndAttach	Ending Bates Number of last attachment in family
FamilyID	Parent BegBates
Volume	Name of Volume or Load File
MD5Hash	
Custodian_Source	If the source is a human custodian, please provide the name: Last name, first name. If this results in duplicates, add numbers or middle initials Last name, first name, middle initial or # If the source is not a human custodian, please provide a unique name for the source. Ex: AcctgServer
FROM	Email
TO	Email
CC	Email
BCC	Email
Subject	Email
Sent Date	Email
Sent Time	Email
File Extension	
Attch Count	Email
Doc Type	Email, attachment
Original FilePath	Original location of the item at time of Preservation.
FileName	
CreateDate	Loose files or attachments. Date and Time must be in separate fields.
CreateTime	Loose files or attachments. Date and Time must be in separate fields and the Time field should not include Time Zone (EDT, EST etc)
LastModDate	Loose files or attachments (Date and Time must be in separate fields)
LastModTime	Loose files or attachments. Date and Time must be in separate fields and the Time field should not include Time Zone (EDT, EST, AM, PM etc)
Redacted	This is a Boolean/bit character field. Data value should be "0" or "1" where 0 = No and 1=Yes.
Confidentiality Designation	NOTE: *Do not append the Confidentiality Designation to the native file name*
RemovedFrom	Last name, first name with semi colon as separator Lastname, firstname; nextlastname, nextfirstname etc.

Office of the Attorney General - Data Delivery Specification
ONE – Production Load File

Encrypted_pwp	This is a single character field. Data value should be "N" or "Y". (File is or is not encrypted/password protected)
EncryptKey_password	For those files where Encrypted_pwp is Y, provide password or encryption key information in this field.
ProdDate	MM\DD\YYYY
TextLink	path to the text files should begin with TEXT\
NativeLink	path to the native files should begin with NATIVES\

The Data load file for ONE is the same as a Concordance load file, with the same field delimiters (¶) and text qualifiers (þ). Here is a screen shot of part of a ONE load file with the fields identified above:

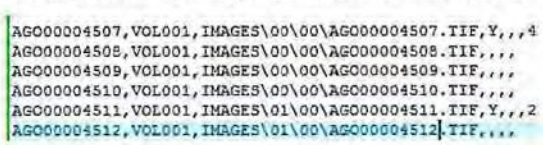


c. Fields required for an Images Load File – Opticon Format

The Images load file for ONE is the same as an OPTICON load file. It contains these fields, although Folder Break and Box Break are often not used.

Field Name	Description/Notes
Alias	Imagekey/Image link - Beginning bates or ctrl number for the document
Volume	Volume name or Load file name
Path	relative path to Images should begin with IMAGES\ and include the full file name and file extension (tif, jpg)
Document Break	Y denotes image marks the beginning of a document
Folder Break	N/A - leave blank
Box Break	N/A - leave blank
Pages	Number of Pages in document

Here is a screen shot of an opticon load file format in a text editor with each field separated by a comma. Alias, Volume, Path, Document Break, Folder Break (blank), Box Break (blank), Pages.



Technical questions regarding this specification should be addressed to:

Diane E. Barry
AAG / eDiscovery Attorney
Office of the Attorney General
One Ashburton Place
Boston MA 02108
Diane.E.Barry@state.ma.us
(617) 963-2120

Rev. 09-24-2015

Exhibit JJ

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
FORT WORTH DIVISION

EXXON MOBIL CORPORATION, Plaintiff, v. MAURA TRACY HEALEY, Attorney General of Massachusetts, in her official capacity, Defendant.	§ § § § § § § § § § § §	CIVIL ACTION NO. _____

DECLARATION OF ROBERT A. LUETTGEN

I, Robert A. Luettgen, declare as follows:

1. My name is Robert A. Luettgen. I am Assistant Corporate Secretary at Exxon Mobil Corporation and have held this position since 2010. I am over 18 years of age and am fully competent in all respects to make this Declaration. The facts stated in this declaration are true and correct and are based on personal knowledge that I have obtained in my capacity as an employee of Exxon Mobil Corporation and from inquiries I made before submitting this declaration.

2. I submit this declaration in support of Plaintiff Exxon Mobil Corporation's Motion for a Preliminary Injunction.

3. Exxon Mobil Corporation maintains its principal office and its central operations in Texas.

4. Exxon Mobil Corporation holds its shareholder meetings in Texas.

5. Exxon Mobil Corporation does not maintain any climate change research facilities or personnel in Massachusetts.

6. In the past five years, Exxon Mobil Corporation has not marketed or sold any securities or debt to the general public in Massachusetts.

7. In the past five years, Exxon Mobil Corporation has not issued any form of equity for sale to the general public in Massachusetts.

8. Aside from commercial paper, Exxon Mobil Corporation's only sale of debt in the past decade has been to underwriters outside the Commonwealth, and Exxon Mobil Corporation did not market that debt to investors in Massachusetts.

9. During the limitations period, ExxonMobil has sold short-term, fixed-rate notes, which mature in 270 days or less, to institutional investors in Massachusetts.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 14, 2016.

Robert A. Luettgen
Assistant Corporate Secretary
Exxon Mobil Corporation
5959 Las Colinas Blvd
Irving, Texas 75039

Exhibit KK

THE WALL STREET JOURNAL.

http://www.wsj.com/articles/new-york-ag-employs-powerful-law-in-exxon-probe-1474061881

BUSINESS

New York AG Employs Powerful Law in Exxon Probe

New York's 1921 Martin Act grants prosecutors wide jurisdiction in securities investigations

PHOTO: BLOOMBERG NEWS

By CHRISTOPHER M. MATTHEWS
Sept. 16, 2016 5:38 p.m. ET

On first blush, New York Attorney General Eric Schneiderman's probe into Exxon Mobil Corp.'s accounting practices raises some questions. For instance, why is the top cop in New York investigating the Texas-based company's financial disclosures, a job more commonly handled by the federal Securities and Exchange Commission?

But Mr. Schneiderman has been knee deep in Exxon's internal forecasting for more than a year, using a powerful New York state fraud law to investigate the company's knowledge of the impact of climate change and how it could affect its future business.

The new probe into why Exxon hasn't written down the value of its assets two years into a crash in oil prices is an outgrowth of the climate change investigation, say people familiar with the matter, and yet another example of the wide jurisdiction of New York's Martin Act.

READ MORE

- Exxon's Accounting Practices Are Investigated
- Big Oil Companies Stay Shy Despite Upswing in Prices
- Exxon Seeking Injunction Against Climate-Change Investigation

Both probes have been examining whether Exxon, the world's largest publicly traded energy company, violated the 1921 law, under which prosecutors must prove a company misled or omitted material facts from investors while offering securities.

The law grants wide powers. It doesn't require prosecutors to prove there was criminal intent or even that there were victims of an alleged fraud, something other agencies, including the SEC, have to prove under federal securities law.

An Exxon spokesman declined to comment on the investigation but said the company didn't have any material impairment impacts in its financial results.

Similar investigations brought by at least five other state attorneys general have been hampered by aggressive moves by Exxon, which, for instance, has sought to quash subpoenas issued by Massachusetts and the U.S. Virgin Islands. But the company hasn't challenged Mr. Schneiderman's broad subpoenas for emails, financial records, internal forecasts and other documents, a nod to breadth of the Martin Act.

Still, some legal experts have questioned whether Mr. Schneiderman is overreaching with his use of the Martin Act.

"You'd think if there was an issue about marking down reserves or other misstatements, that would be the eminent province of the SEC," said James Fanto, a professor at Brooklyn Law School.

Since 2014, oil producers world-wide have been forced to recognize that wells they plan to drill in the future are worth $200 billion less than they once thought, and revisions have become a staple of oil industry earnings, helping to push losses to record levels. Exxon hasn't taken any write-downs—the only major U.S. oil producer not to do so—which has led some analysts to question its accounting practices.

"The Attorney General's office is conducting an investigation into potential business fraud, consumer fraud, and securities fraud," spokesman Eric Soufer said. "As the Attorney General has said, the company's financial disclosures—and not the accuracy of its historic climate change research—are the focus of this investigation."

Columbia Law School Professor Merritt B. Fox said the key issue for Mr. Schneiderman in either probe is whether the information Exxon allegedly withheld was, in fact, material in the eyes of the investing world.

"If they have evidence Exxon knew about the effects of climate change or falling prices on its assets and didn't disclose it to people outside, that has the possibility of being a material misstatement or omission," Professor Fox said.

But if the public could make investment decisions with other publicly available information, "it could be an issue," for Mr. Schneiderman, he said.

News of Mr. Schneiderman's new focus, reported by The Wall Street Journal on Friday, also comes amid pushback to the climate change investigations by conservative advocacy groups, lawmakers and state AGs.

The Energy & Environment Legal Institute, a conservative nonprofit, released emails last week from other AGs offices that were involved in a March press conference set up by Mr. Schneiderman to announce a coalition to combat climate change. The group, which obtained the emails through Freedom of Information requests, say they show skepticism by the other AG offices about the New York probe.

Meanwhile, a group of 11 Republican state attorneys general have filed motions to support Exxon's efforts in Massachusetts state court to challenge a subpoena sent to the company by Massachusetts Attorney General Maura Healey.

Write to Christopher M. Matthews at christopher.matthews@wsj.com

Exhibit LL

FILED
TARRANT COUNTY
4/13/2016 1:02:01 PM
THOMAS A. WILDER
DISTRICT CLERK

NO. 017-284890-16

EXXON MOBIL CORPORATION, *Plaintiff*, v. CLAUDE EARL WALKER, Attorney General of the United States Virgin Islands, in his official capacity, COHEN MILSTEIN SELLERS & TOLL, PLLC, in its official capacity as designee, and LINDA SINGER, in her official capacity as designee, *Defendants.*	IN THE DISTRICT COURT OF TARRANT COUNTY, TEXAS _____ JUDICIAL DISTRICT

PLAINTIFF'S ORIGINAL PETITION
FOR DECLARATORY RELIEF

Plaintiff Exxon Mobil Corporation ("ExxonMobil"), a company with principal offices in the State of Texas, files this Original Petition for Declaratory Relief against Defendants Claude Earl Walker, Attorney General of the United States Virgin Islands; the law firm of Cohen Milstein Sellers & Toll, PLLC ("Cohen Milstein"), a Washington, D.C. law firm that purports to represent Attorney General Walker in a claimed "investigation" of ExxonMobil; and Linda Singer, a member of Cohen Milstein with apparent responsibility for conducting the "investigation." Defendants' actions violate ExxonMobil's constitutionally protected rights of freedom of speech, freedom from unreasonable searches and seizures, and due process of law and constitute the common law tort of abuse of process. In support of this petition, ExxonMobil would show the Court:

I. DISCOVERY CONTROL PLAN

1. Discovery shall be conducted under the Level 2 Discovery Control Plan of Rule 190.3 of the Texas Rules of Civil Procedure. However, ExxonMobil reserves the right to request entry of an order establishing a Level 3 discovery control plan. Plaintiff seeks only non-monetary relief.

II. INTRODUCTION

2. Frustrated by the federal government's perceived inaction, a coalition of 20 state attorneys general announced their "collective efforts to deal with the problem of climate change" at a press conference, held on March 29, 2016, with former Vice President Al Gore as the featured speaker. The attorneys general declared that they planned to "creatively" and "aggressively" use the powers of their respective offices on behalf of the coalition to force ExxonMobil[1] and other energy companies to comply with the coalition's preferred policy responses to climate change. As their statements made unmistakably clear, the attorneys general press conference was a politically-motivated event, urged on by activists intolerant of contrary views.

3. At that press conference, Defendant Walker, the Attorney General of the United States Virgin Islands, an unincorporated United States Territory where ExxonMobil has no business operations, staff, or assets, pledged to do something "transformational" to end "rel[iance] on fossil fuel," beginning with "an investigation into a company" that manufactures a "product" he believes is "destroying this earth."

4. Attorney General Walker's "transformational" use of his office's powers includes the issuance of a subpoena, signed by a member of his staff, but mailed to

[1] ExxonMobil was formed as a result of a merger between Exxon and Mobil on November 30, 1999. For ease of discussion, we refer to the predecessor entities as ExxonMobil throughout the Petition.

ExxonMobil in Irving, Texas by Cohen Milstein, a Washington, D.C. law firm that touts itself as a "pioneer in plaintiff class action lawsuits" and "the most effective law firm in the United States for lawsuits with a strong social and political component."

5. In line with his so-called "transformational" agenda, Attorney General Walker deployed his authority under the Territory's anti-racketeering statute, the Criminally Influenced and Corrupt Organizations Act ("CICO"), to issue the subpoena, and he identified as the statutory predicates "obtaining money by false pretenses" and conspiracy to do so. According to the subpoena, ExxonMobil "misrepresent[ed] [its] knowledge of the likelihood that [its] products and activities have contributed and are continuing to contribute to Climate Change in order to defraud" the government and "consumers" in the Virgin Islands, giving rise to an alleged "civil violation" of CICO.

6. Attorney General Walker's allegation amounts to little more than a weak pretext for an unlawful exercise of government power. First, CICO's statute of limitations requires the occurrence of at least one predicate act of fraud within the last five years.[2] For more than a decade, however, ExxonMobil has widely and publicly confirmed that it "recognize[s] that the risk of climate change and its potential impacts on society and ecosystems may prove to be significant."[3]

7. Second, ExxonMobil has engaged in no conduct in the Virgin Islands that could give rise to a violation of Virgin Islands law. ExxonMobil has no physical presence in the Virgin Islands; it owns no property, has no employees, and has conducted no business operations in the Virgin Islands in the last five years.

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[2] 14 V.I.C. § 604(j)(2)(B).

[3] Exxon Mobil Corp., *Corporate Citizenship in a Changing World* 10 (2002); *see also* Exxon Mobil Corp., *2006 Corporate Citizenship Report* 15 (2007) ("Because the risk to society and ecosystems from rising greenhouse gas emissions could prove to be significant, strategies that address the risk need to be developed and implemented.").

8. Third, no court in the Virgin Islands has jurisdiction over ExxonMobil, a New Jersey corporation with principal offices in the State of Texas. In the absence of such jurisdiction over ExxonMobil, neither Attorney General Walker nor Cohen Milstein has a legal basis to press any claims or charges against ExxonMobil arising under the laws of the Virgin Islands.[4]

9. In short, there is no *bona fide* basis for the Walker/Cohen Milstein subpoena, much less the reasonable suspicion required by the face of the very statute whose authority Attorney General Walker and Cohen Milstein have abused.[5]

10. Defendants' dubious allegation unmasks this subpoena for what it is: a pretextual use of law enforcement power to deter ExxonMobil from participating in ongoing public deliberations about climate change and to fish through decades of ExxonMobil's documents with the hope of finding some ammunition to enhance Attorney General Walker's position in the policy debate. Attorney General Walker and designees Cohen Milstein and Singer, acting in their official capacities, are abusing the power of government to chill and deter ExxonMobil from engaging in public discussions of policy issues related to climate change. The Walker/Cohen Milstein subpoena and the abusive CICO investigation violate and continue to violate ExxonMobil's rights under the United States Constitution and the Texas Constitution.

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[4] It appears that mailing the Walker/Cohen Milstein subpoena to ExxonMobil in Texas constitutes yet another impropriety. *See* 14 V.I.C. § 612(d) ("When documentary material is demanded by subpoena [under CICO], the subpoena shall not contain any requirement that would be unreasonable or improper if contained in a subpoena duces tecum issued by a court in this Territory."); *Virgin Islands* v. *Steinhauer*, No. ST-10-CR-F240, 2010 WL 7371550 (V.I. Super. 2010) ("One important limitation on state courts is that they lack the authority to issue compulsory process outside of their respective territorial jurisdictions.").

[5] 14 V.I.C. § 612(a) (authorizing subpoenas where attorney general "reasonably suspect[s]" a CICO violation).

11. This flagrant misuse of law enforcement power is further illustrated by Attorney General Walker's outsourcing of the Virgin Islands' "investigation" to Defendants Cohen Milstein and Singer, likely on a contingency-fee basis. Walker's purported delegation to Cohen Milstein and Singer deprives ExxonMobil of due process of law and fundamental fairness. For more than a decade, Cohen Milstein has pursued bitterly contested and contentious litigation in an unrelated lawsuit against ExxonMobil now pending in federal court in the District of Columbia, which could result in a substantial fee award if Cohen Milstein's client were to prevail. That litigation record and Cohen Milstein's receipt of a $15 million contingency-fee payment from Attorney General Walker in another unrelated case raise substantial doubts about whether that firm should be permitted to serve as the "disinterested prosecutor" whose impartiality is demanded by law and expected by the public.

12. Through their unlawful and concerted actions, Attorney General Walker, Cohen Milstein, and Singer, acting in their official capacities, have deprived and will continue to deprive ExxonMobil of its rights under the United States Constitution, the Texas Constitution, and common law. As a result, ExxonMobil seeks a declaratory judgment stating that the issuance of the Walker/Cohen Milstein subpoena has violated and continues to violate ExxonMobil's rights under the First, Fourth, Fifth, and Fourteenth Amendments to the United States Constitution, 48 U.S.C. § 1561, and Sections Eight, Nine, and Nineteen of Article One of the Texas Constitution, and constitutes an abuse of process under common law.

III. PARTIES

13. Plaintiff ExxonMobil is a public shareholder owned energy company incorporated in New Jersey with principal offices in the State of Texas. ExxonMobil has

no business operations or staff in the Virgin Islands and has not had any within the past five years.

14. Defendant Claude Earl Walker is the Attorney General of the Virgin Islands and resides in the Virgin Islands. He is sued in his official capacity. Under Virgin Islands law, Attorney General Walker is the chief law enforcement officer for the Territory and is the head of the Virgin Islands Department of Justice. Attorney General Walker's principal office is located at 34-38 Kronprindsens Gade, GERS Complex, 2nd Floor, St. Thomas, U.S. Virgin Islands, 00802. Attorney General Walker may be served with a copy of the Original Petition and Citation by serving the Texas Secretary of State at P.O. Box 12079, Austin, Texas 78711-2079, as the agent for service because Attorney General Walker committed a tort in Texas and Attorney General Walker does not maintain a registered agent for service of process in Texas.

15. Defendant Cohen Milstein is a law firm that promotes itself as "a pioneer in plaintiff class action lawsuits" and "[t]he most effective law firm in the United States for lawsuits with a strong social and political component."[6] Its principal office is located at 1100 New York Avenue, N.W., Suite 500, West Tower, Washington, D.C. 20005. Cohen Milstein is sued in its official capacity as the designee for the Attorney General of the Virgin Islands in his investigation of ExxonMobil and the mailing of the Walker/Cohen Milstein subpoena to ExxonMobil in Texas. Cohen Milstein may be served with a copy of the Original Petition and Citation by serving the Texas Secretary of State at P.O. Box 12079, Austin, Texas 78711-2079, as the agent for service because

[6] Cohen Milstein, *About Us*, *available at* http://www.cohenmilstein.com/about.php (last visited Apr. 12, 2016).

Cohen Milstein committed a tort in Texas and does not maintain a registered agent for service of process in Texas.

16. Defendant Linda Singer is a partner at Cohen Milstein's office in Washington, D.C. and a non-resident of Texas, whose usual place of business is located at 1100 New York Avenue, N.W., Suite 500, West Tower, Washington, D.C. 20005. Singer has been designated "national counsel" by Attorney General Walker in connection with the investigation of ExxonMobil and is sued in her official capacity. Singer may be served with a copy of the Original Petition and Citation by serving the Texas Secretary of State at P.O. Box 12079, Austin, Texas 78711-2079, as the agent for service because Singer committed a tort in Texas and but does not maintain a regular place of business in Texas or maintain a registered agent for service of process in Texas.

IV. JURISDICTION AND VENUE

17. This Court has jurisdiction over the subject matter of this case, pursuant to Article V, section 8 of the Texas Constitution, and Sections 24.007 and 24.008 of the Texas Government Code, because Plaintiff seeks a declaration under Section 37.003 of the Texas Civil Practice and Remedies Code that Defendants have violated and continue to violate its rights under 42 U.S.C. § 1983 and the Texas Constitution and that Defendants' actions constitute an abuse of process.

18. This Court has personal jurisdiction over Defendants, pursuant to Section 17.042(2) of the Texas Civil Practice and Remedies Code, because Defendants committed a tort, which is the subject of this suit, in whole or in part in Texas by mailing and causing to be mailed a subpoena to Plaintiff in Texas, which violated Plaintiff's rights under the United States Constitution, the Texas Constitution, and the common law.

Defendants' past conduct, and any further effort to enforce the subpoena, has injured and will continue to injure Plaintiff in Texas.

19. Venue for this case is proper in Tarrant County under Section 15.002(a)(1) of the Texas Civil Practice and Remedies Code because all or a substantial part of the events giving rise to the claim occurred in Tarrant County. Specifically, the Walker/Cohen Milstein subpoena purports to compel ExxonMobil to search and review substantial records stored or maintained in Tarrant County.

V. FACTS

A. The "Green" Coalition of Attorneys General Announce a Plan to Use Law Enforcement Tools to Achieve Political Goals

20. ExxonMobil received the Walker/Cohen Milstein subpoena on March 22, 2016. Although the subpoena appears to have been signed by the Deputy Attorney General of Attorney General Walker's office on March 15, 2016, it arrived by mail a week later in an envelope postmarked Washington, D.C., with a return address for Cohen Milstein's law offices. ExxonMobil's address in Texas was written by hand on the envelope containing the subpoena.[7]

21. On March 29, 2016, a week after ExxonMobil received the subpoena, Attorney General Walker appeared and spoke at a New York City press conference dubbed "AGs United For Clean Power." Former Vice President Al Gore was the event's featured speaker, and attorneys general or staff members from over a dozen other states, the District of Columbia, and the Virgin Islands were in attendance.[8]

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[7] A true and correct copy of a redacted version of the subpoena is attached as Exhibit A and is incorporated by reference.

[8] A transcript of the AGs United For Clean Power Press Conference, held on March 29, 2016, was prepared by counsel based on a video recording of the event, which is available at http://www.ag.ny.gov/press-release/ag-schneiderman-former-vice-president-al-gore-and-coalition-

22. The attorneys general, self-proclaimed as "the Green 20" (a reference to the number of participating attorneys general), explained that their mission was to "com[e] up with creative ways to enforce laws being flouted by the fossil fuel industry."[9] Expressing dissatisfaction with the "gridlock in Washington" regarding climate change legislation, the New York Attorney General said that the coalition had to work "creatively" and "aggressively."[10] He announced that the assembled "group of state actors [intended] to send the message that [they were] prepared to step into this [legislative] breach."[11] He continued:

> We know that in Washington there are good people who want to do the right thing on climate change but everyone from President Obama on down is under a relentless assault from well-funded, highly aggressive and morally vacant forces that are trying to block every step by the federal government to take meaningful action. So today, we're sending a message that, at least some of us—actually a lot of us—in state government are prepared to step into this battle with an unprecedented level of commitment and coordination.[12]

23. Vice President Gore also cited perceived inaction by the federal government to justify investigations brought by state attorneys general, observing that "our democracy's been hacked . . . but if the Congress really would allow the executive branch of the federal government to work, then maybe this would be taken care of at the federal level."[13]

24. Vice President Gore went on to condemn those who question the viability of renewable energy sources, faulting them for "slow[ing] down this renewable

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attorneys-general-across. A copy of this transcript is attached as Exhibit B and is incorporated by reference.

9 *Id.* at 2.

10 *Id.*

11 *Id.* at 3.

12 *Id.* at 4.

13 *Id.* at 9.

revolution" by "trying to convince people that renewable energy is not a viable option."[14] He then accused the fossil fuel industry of "using [its] combined political and lobbying efforts to put taxes on solar panels and jigger with the laws" and said "[w]e do not have 40 years to continue suffering the consequences of the fraud."[15]

25. After hailing Vice President Gore as one of his "heroes," Attorney General Walker explained that his office had "launched an investigation into a company that we believe must provide us with information about what they knew about climate change and when they knew it."[16] That thinly-veiled reference to ExxonMobil was later confirmed in a press release naming ExxonMobil as the target of his investigation.[17]

26. Continuing the theme of the press conference, Attorney General Walker admitted that his investigation of ExxonMobil (or "Goliath," to use his vernacular) was aimed at changing public policy, not investigating actual violations of existing law:

> It could be David and Goliath, the Virgin Islands against a huge corporation, but we will not stop until we get to the bottom of this and make it clear to our residents as well as the American people that we have to do something transformational. We cannot continue to rely on fossil fuel. Vice President Gore has made that clear.[18]

27. To Attorney General Walker, the public policy debate on climate change is settled: "We have to look at renewable energy. That's the only solution."[19]

28. As for the energy companies like ExxonMobil, Attorney General Walker accused them of producing a "product that is destroying this earth."[20] He complained

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14 *Id.*
15 *Id.* at 7.
16 *Id.* at 15.
17 Press Release, A.G. Schneiderman, Former Vice President Al Gore And A Coalition Of Attorneys General From Across The Country Announce Historic State-Based Effort To Combat Climate Change (Mar. 29, 2016), *available at* http://www.ag.ny.gov/press-release/ag-schneiderman-former-vice-president-al-gore-and-coalition-attorneys-general-across.
18 Ex. B at 16.
19 *Id.*

that, "as the polar caps melt," those "companies . . . are looking at that as an opportunity to go and drill, to go and get more oil. Why? How selfish can you be?"[21]

29. These statements were so wholly incompatible with the impartiality expected of law enforcement officials that one reporter asked whether the press conference and the publicized investigations were nothing more than "publicity stunt[s]."[22]

30. The press conference also drew a swift and sharp rebuke from other state attorneys general who recognized a misuse of state power in the making. The attorneys general of Alabama and Oklahoma stated that "scientific and political debate" "should not be silenced with threats of criminal prosecution by those who believe that their position is the only correct one and that all dissenting voices must therefore be intimidated and coerced into silence."[23] They stated further that "[i]t is inappropriate for State Attorneys General to use the power of their office to attempt to silence core political speech on one of the major policy debates of our time."[24]

31. The Louisiana Attorney General observed that "[i]t is one thing to use the legal system to pursue public policy outcomes; but it is quite another to use prosecutorial weapons to intimidate critics, silence free speech, or chill the robust exchange of ideas."[25] Likewise, the Kansas Attorney General questioned the "unprecedented" and "strictly partisan nature of announcing state 'law enforcement' operations in the presence of a

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20 *Id.*

21 *Id.*

22 *Id.* at 17.

23 Press Release, Alabama Attorney General, State AG's Strange, Pruitt Condemn Attempts To Silence Those Who Disagree With President Obama's Energy Agenda (March 30, 2016), *available at* http://www.ago.state.al.us/News-800.

24 *Id.*

25 *Attorney General Jeff Landry Slams Al Gore's Coalition*, Office of the Attorney General: State of Louisiana (Mar. 30, 2016), *available at* https://www.ag.state.la.us/Article.aspx?articleID=2207&catID=2.

former vice president of the United State[s] who, presumably [as a private citizen], has no role in the enforcement of the 17 states' securities or consumer protection laws."[26] The West Virginia Attorney General criticized the attorneys general for "abusing the powers of their office" and stated that the desire to "eliminate fossil fuels . . . should not be driving any legal activity" and that it was improper to "use the power of the office of attorney general to silence . . . critics."[27]

B. The Virgin Islands Investigation of ExxonMobil Is Invalid and Meritless

32. Eight months before the press conference, on August 6, 2015, Kenneth Mapp, the Governor of the Virgin Islands, appointed Defendant Walker as the Acting Attorney General. Walker was confirmed in the office on December 15, 2015.

33. The Attorney General of the Virgin Islands is authorized to (i) "investigate violations of the laws of the Virgin Islands for which the executive branch of the Government of the United States Virgin Islands may invoke penalties, fines or forfeitures, or deny, suspend or revoke licenses" and (ii) "initiate and conduct appropriate proceedings in relation thereto."[28]

34. According to the Walker/Cohen Milstein subpoena, the Virgin Islands investigation concerns ExxonMobil's alleged violation of CICO, the Territory's version of the federal Racketeer Influenced and Corrupt Organizations Act.[29] The subpoena spans 17 pages, contains 16 broadly worded document requests, and covers a nearly 40-year time period. The subpoena identifies two purported predicate offenses: obtaining

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[26] Michael Bastasch, *Kansas AG Takes On Al Gore's Alarmism – Won't Join Anti-Exxon 'Publicity Stunt,'* Dailycaller.com (Apr. 4, 2016), *available at* http://dailycaller.com/2016/04/04/kansas-ag-takes-on-al-gores-alarmism-wont-join-ant-exxon-publicity-stunt.

[27] Kyle Feldscher, *West Virginia AG 'disappointed' in probes of Exxon Mobil*, Washington Examiner (Apr. 5, 2016), *available at* http://www.washingtonexaminer.com/west-virginia-ag-disappointed-in-probes-of-exxon-mobil/article/2587724.

[28] 3 V.I.C. § 114(4).

[29] Ex. A at 1.

money by false pretenses, in violation of 14 V.I.C. § 834, and conspiracy to obtain money by false pretenses, in violation of 14 V.I.C. § 551.[30]

35. In order to issue a subpoena investigating an alleged CICO violation, the Attorney General must "reasonably suspect[]" that a CICO violation has occurred.[31] But the grounds Attorney General Walker has identified for his suspicion are pretexts.

36. Under CICO, at least one of the two required predicate acts must have been committed within five years of the filing of any case by the Attorney General.[32] To meet the statutory standard of reasonable suspicion for an act within the limitations period, at a bare minimum, it would have to be shown that sometime after March 2011, ExxonMobil "misrepresent[ed] [its] knowledge of the likelihood that [its] products and activities have contributed and are continuing to contribute to Climate Change in order to defraud" the government and "consumers" in the Virgin Islands.[33] But throughout that period and well before, ExxonMobil has publicly and repeatedly acknowledged risks related to climate change.

37. For example, ExxonMobil's 2006 Corporate Citizenship Report recognized that "the risk to society and ecosystems from rising greenhouse gas emissions could prove to be significant."[34] Despite noting that "[c]limate remains an extraordinarily complex area of scientific study," it reasoned that "strategies that address the risk need to be developed and implemented."[35]

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30 *Id.*
31 14 V.I.C. § 612(a).
32 14 V.I.C. § 604(j)(2)(B).
33 Ex. A. at 1.
34 Exxon Mobil Corp., *2006 Corporate Citizenship Report* 15 (2007).
35 *Id.*

38. In addition, in 2002, ExxonMobil, along with three other companies, helped launch the Global Climate and Energy Project at Stanford University, which has a mission of "conducting fundamental research on technologies that will permit the development of global energy systems with significantly lower greenhouse gas emissions."[36]

39. ExxonMobil has also discussed these risks in its public Securities and Exchange Commission filings. For example, in its 2006 10-K, ExxonMobil stated that the "risks of global climate change" "have been, and may in the future" continue to impact its operations.[37] Similarly, in its 2009 10-K, ExxonMobil noted that the "risk of climate change" and "pending greenhouse gas regulations" may increase its "compliance costs."[38]

40. It is notable that the United States government did not even formally opine on the effects of greenhouse gases on the environment until 2009, when the Environmental Protection Agency ("EPA") issued its endangerment finding that "current and projected concentrations of the six key well-mixed greenhouse gases . . . in the atmosphere threaten the public health and welfare of current and future generations."[39]

41. An even more fundamental problem with the investigation is that Attorney General Walker and the Territory of the Virgin Islands lack jurisdiction over ExxonMobil. ExxonMobil has maintained no business operations, staff, or assets in the Virgin Islands within the last five years. Rather, ExxonMobil is headquartered and

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[36] Stanford University Global Climate & Energy Project, *About Us*, *available at* https://gcep.stanford.edu/about/index.html (last visited Apr. 12, 2016).

[37] Exxon Mobil Corp., Annual Report (Form 10-K) (Feb. 28, 2007).

[38] Exxon Mobil Corp., Annual Report (Form 10-K) (Feb. 26, 2010).

[39] *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, EPA, http://www3.epa.gov/climatechange/endangerment (last updated Feb. 23, 2016).

maintains all of its central operations in Texas. There appears to be no legal action that Attorney General Walker could plausibly bring against ExxonMobil under CICO in a Virgin Islands court.

42. Nevertheless, the Walker/Cohen Milstein subpoena unreasonably demands production of essentially any and all ExxonMobil communications and documents related to climate change since 1977 (a period of 39 years), including all documents related to research ExxonMobil conducted or funded.[40] For example, the subpoena demands "[a]ll Documents or Communications reflecting or concerning studies, research, or other reviews" ExxonMobil conducted or funded "regarding the certainty, uncertainty, causes or impacts of Climate Change."[41]

43. The subpoena also appears to target individuals and entities that hold policy views with which Attorney General Walker disagrees. The subpoena requests "[a]ll Documents or Communications concerning research, advocacy, strategy, reports, studies, reviews, or public opinions regarding Climate Change sent to or received from" 88 named organizations, three-quarters of which have been identified by environmental advocacy groups as opposing policies in favor of addressing climate change or disputing the science in support of climate change.[42] It requests similar documents and communications from 54 named scientists, professors, and other professionals.[43] Eighty percent of the individuals in this request, who have been identified in the media as having a viewpoint on climate change, either oppose policies in favor of addressing climate change or dispute the science in support of climate change.

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40 Ex. A (Document Request Nos. 1-2).
41 *Id.* (Document Request No. 1).
42 *Id.* (Document Request No. 6).
43 *Id.* (Document Request Nos. 7-8).

44. The exceptionally broad scope of this investigative demand—nearly 40 years of records across an employee base that now stands at 73,500 people—highlights the pretextual basis for the investigation and the subpoena. Complying with the Virgin Islands subpoena would impose on ExxonMobil burden and expense incommensurate with any legitimate law enforcement purpose.

45. In another remarkable irregularity, the subpoena directs ExxonMobil to produce responsive records to Attorney General Walker's office and Defendant Linda Singer within a month's time, by April 15, 2016.[44] It also instructs ExxonMobil to present any inquiries about compliance to the Attorney General's office or to Singer at Cohen Milstein's offices in Washington, D.C.

C. Attorney General Walker Has Improperly Delegated His Law Enforcement Authority to Cohen Milstein

46. Defendant Cohen Milstein has previously served as private counsel to various attorneys general pursuant to contingent fee arrangements.[45]

47. As reported by *The New York Times* on December 18, 2014, Defendants Singer and Cohen Milstein regularly pitch state attorneys general and other public officials on possible lawsuits that they propose to file against companies perceived to have deep pockets. Singer was reported to have contacted attorneys general in Arizona, Connecticut, Nevada, New Mexico, New York, and Washington, to take on major plaintiff-side civil cases on a contingency-fee basis.[46]

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44 *Id.* at 2.

45 Retainer Agreement, dated May 15, 2012, and letters between Cohen Milstein and Linda Singer with the Office of the Attorney General of Mississippi regarding their investigation of JPMorgan Chase and Bank of America; Retainer Agreement, dated Apr. 8, 2013, between Cohen Milstein and the City of Chicago.

46 Eric Lipton, *Lawyers Create Big Paydays by Coaxing Attorneys General to Sue*, N.Y. Times, Dec. 18, 2014.

48. Within months of his appointment, Attorney General Walker contracted for legal services with Cohen Milstein and Singer on a contingency-fee basis in another matter. Under that agreement, Cohen Milstein and Singer pursued a claim against a different American energy company for closing a refinery in the Virgin Islands in contravention of a supposed pledge to continue operations through 2022.[47] Cohen Milstein and Singer brought a lawsuit against the company on September 15, 2015,[48] which settled soon after. On February 16, 2016, Cohen Milstein and Singer received $15 million pursuant to that contingency-fee arrangement with Attorney General Walker.[49]

49. Less than one month later, Attorney General Walker issued the subpoena that Cohen Milstein mailed to ExxonMobil.

50. On information and belief, Walker and Cohen Milstein have entered into a contingency-fee contract here similar to their previous fee arrangement.

51. In addition to its past dealings with Attorney General Walker, Defendant Cohen Milstein has been and currently is pursuing a contentious 15-year litigation in an unrelated action against ExxonMobil, in which ExxonMobil has raised serious questions about whether Cohen Milstein and its co-counsel have fully complied with their ethical obligations.

52. Since 2001, Cohen Milstein, along with co-counsel Terrence Collingsworth, has represented a group of anonymous plaintiffs from Aceh, Indonesia, in a lawsuit for money damages and other relief under the Alien Tort Statute (the "ATS

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47 Y. Peter Kang, *Virgin Islands Sues Hess For $1.5B Over Refinery Closure*, Law360 (Sept. 14, 2015), *available at* http://www.law360.com/articles/702563/virgin-islands-sues-hess-for-1-5b-over-refinery-closure.

48 *Id.*

49 Bill Kossler, *$220 Hovensa Windfall Honeymoon Already Over*, St. Croix Source (Feb. 16, 2016).

Matter").[50] The lawsuit alleges that ExxonMobil aided and abetted human rights abuses committed by Indonesian troops assigned by the Indonesian government to protect an Indonesian natural gas facility during an Indonesian civil war. However, ExxonMobil's role was simply to operate the natural gas facility as a contractor to the Indonesian government.[51] In addition, while conducting its business in Indonesia, ExxonMobil has worked for generations to improve the quality of life in Indonesia through employment of local workers, provision of health services, and extensive community investment. ExxonMobil categorically denies that it was complicit in any human rights violations and strongly condemns human rights violations in any form.

53. The ATS Matter is one of a number of cases that have been filed across the country by Collingsworth against multi-national corporations operating overseas.[52] In recent years, it has come to light in many of those cases that Collingsworth has engaged in repeated misconduct, such as fabricating plaintiffs and claims, bringing claims without authorization from any plaintiffs, and paying fact witnesses $100,000 in an effort to secure favorable testimony.[53]

54. In *Gonzalez* v. *Texaco*, Collingsworth filed suit for Ecuadorian plaintiffs who claimed that Texaco's petroleum operations caused them physical injuries, including

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50 ExxonMobil is represented in the ATS Matter, as it is in this action, by the law firm of Paul, Weiss, Rifkind, Wharton & Garrison, LLP.

51 *Doe I* v. *Exxon Mobil Corp.*, No. 01-1357, Dkt. 533, ¶ 28 (D.D.C. Sept. 10, 2015).

52 Those cases include *Gonzalez* v. *Texaco*, No. C. 06-02820 WHA (N.D. Cal. 2006); *Juana Perez 1A* v. *Dole Food Co.*, No. BC412620 (Cal. Super. Ct., L.A. Cnty.); *Jane/John Does 1-144* v. *Chiquita Brands Int'l Inc.*, No. 1:07-cv-01048, Dkt. 3 (D.D.C. Jun. 7, 2007) (Complaint filed by Collingsworth), consolidated into *In re Chiquita Brands Int'l, Inc. Alien Tort Statute & S'holder Derivative Litig.*, No. 08-01916-MD-MARRA, Dkt. 1 (S.D. Fla. Feb. 25, 2008) (Consolidation Order); *Baloco* v. *Drummond Co.*, No. 7:09-cv-00557, Dkt. 1 (N.D. Ala. Mar. 20, 2009) (Complaint); and *Balcero* v. *Drummond Co.*, No. 2:09-cv-01041, Dkt. 1 (N.D. Ala. May 27, 2009) (Complaint).

53 *Drummond Co.* v. *Collingsworth*, No. 9:14-mc-81189-DMM, Dkt. 14 (S.D. Fla. Oct. 24, 2014).

cancer.[54] However, deposition testimony revealed that three of the plaintiffs' claims were wholly fabricated—neither they nor their family members ever had cancer—and the claims were dismissed.[55] The episode caused the judge to rebuke Collingsworth, remarking that this was "not the first evidence of misconduct by plaintiffs' counsel in this case" and that Collingsworth "manufactured" the case.[56] Additional evidence in the case revealed that Collingsworth not only had fabricated claims about whether the plaintiffs had cancer, but had also filed suit on behalf of individuals without their authorization.[57] The court specifically found that Collingsworth had filed complaints on behalf of "[p]laintiffs [who] were not even aware that a lawsuit had been filed in their names in the United States and none of them had specifically authorized such a suit."[58]

55. The mounting evidence of misconduct by Cohen Milstein's co-counsel culminated in a scathing opinion issued by an Alabama federal judge in December 2015, in which the judge found that Collingsworth had improperly made payments to witnesses and made repeated and knowing false statements to both the court and to opposing counsel in an effort to conceal the payments.[59]

56. In addition, just last month, Collingsworth voluntarily dismissed with prejudice a lawsuit he had filed against the Dole Food Company in California state

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54 No. C. 06-02820 WHA (N.D. Cal. 2006).

55 *Gonzalez* v. *Texaco*, No. C. 06-02820 WHA, 2007 WL 2255217, at *1-2, 4 (N.D. Cal. Aug. 3, 2007).

56 *Id.*

57 *Id.* at *2.

58 Order Declining to Impose Additional Sanctions for Attorney's Unreasonable and Incompetent Actions, *Gonzalez* v. *Texaco*, No. C 06-02820 WHA, Dkt. 371 (N.D. Cal. Dec. 21, 2009).

59 Memorandum Opinion and Order, *Drummond, Inc.* v. *Collingsworth*, No. 2:11-cv-3695-RDP, Dkt. 417 (N.D. Ala. Dec. 7, 2015) (The judge stated he "ha[d] no hesitation in finding that there is (at least) probable cause to believe that Collingsworth . . . engaged in witness bribery and suborning perjury," and that "this alleged witness bribery continues to this day.").

court.[60] He did so after it came to light that Collingsworth's colleagues had offered bribes to third parties to provide testimony favorable to the plaintiffs in that lawsuit.[61]

57. Based on this, and other evidence, ExxonMobil has been pressing both Cohen Milstein and Collingsworth for over a year to produce all records of payments to any witnesses in the ATS Matter. Among other things, ExxonMobil has pressed Cohen Milstein to demonstrate its compliance with its ethical obligations to ensure the accuracy of representations made by its co-counsel on behalf of their mutual clients, including whether any payments have been made to witnesses. Cohen Milstein apparently has consulted with outside counsel to address its obligations in view of its co-counsel's misconduct, and the parties are in the midst of litigating ExxonMobil's supplemental motion to compel additional documents from Cohen Milstein and Collingsworth.

58. In light of its involvement in this contentious litigation against ExxonMobil, the very target of Attorney General Walker's investigation, Cohen Milstein cannot be the neutral, disinterested prosecutor required by due process under the United States Constitution and the Texas Constitution.

D. ExxonMobil Has Been Injured and Continues To Be Injured by Defendants' Conduct

59. ExxonMobil has long been active in the policy debate about potential responses to climate change. Indeed, since 2009, ExxonMobil has publicly advocated for a carbon tax as the preferred method to regulate carbon emissions. Proponents of a carbon tax on greenhouse gas emissions argue that increasing taxes on carbon can "level

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60 Request for Dismissal, *Juana Perez 1A* v. *Dole Food Co.*, BC412620 (March 2, 2016).

61 *Juana Perez 1A* v. *Dole Food Co.*, Case No. BC412620, Transcript of Deposition of Adolfo Enrique Guevara Cantillo, at 72:22-73:19 (Cal. Sup. Ct. Jan. 27, 2016); *Juana Perez 1A* v. *Dole Food Co.*, Case No. BC412620, Declaration of Andrea Neuman in Support of Addendum to the Joint Status Conference Statement for February 11, 2016 Conference (Cal. Sup. Ct. Feb. 4, 2016); *Juana Perez 1A* v. *Dole Food Co.*, Case No. BC412620, Plaintiffs' Request for Dismissal (Cal. Sup. Ct. Mar. 2, 2016).

the playing field among different sources of energy."[62] While the coalition of attorneys general is entitled to disagree with ExxonMobil's position, no member of that coalition, including Attorney General Walker, is entitled to silence or seek to intimidate one side of that debate (or the debate about any other important public issue) through the issuance of an overbroad and burdensome subpoena that is facially premised upon a pretextual investigation that has been delegated to a law firm already in contentious litigation with the investigation's target. ExxonMobil intends—and has a Constitutional right—to continue to advance its perspective in the national discussions over how to respond to climate change. Its right to do so should not be violated through this exercise of government power.

60. As a result of the improper and politically-motivated investigation launched by Attorney General Walker and impermissibly delegated to Cohen Milstein and Singer, ExxonMobil has suffered, now suffers, and will continue to suffer violations of its rights under the First, Fourth, and Fifth Amendments to the United States Constitution[63] and under Sections Eight, Nine, and Nineteen of Article One of the Texas Constitution. The chilling effect of this inquiry, which discriminates based on viewpoint to target one side of an ongoing policy debate, strikes at protected speech at the core of the First Amendment. Defendants' burdensome demand for irrelevant records violates the Fourth Amendment's reasonableness requirement, as well as its prohibition on fishing expeditions. Finally, the delegation of this investigation—which carries penalties available only to government prosecutors—to a private law firm, acting on a

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[62] Jeremy Carl & David Fedor, *Revenue-Neutral Carbon Taxes in the Real World: Insights from British Columbia and Australia,* Hoover Institution at Stanford University: Shultz-Stephenson Task Force on Energy Policy 1 (2012).

[63] The federal constitutional rights have been made applicable to the State of Texas through the Fourteenth Amendment and to the Virgin Islands through 48 U.S.C. § 1561.

contingency-fee basis and embroiled in claims of misconduct in a long-running litigation with ExxonMobil, cannot be reconciled with the Fifth Amendment's requirement that only a neutral and impartial prosecutor can satisfy due process.

61. Acting under the laws, customs, and usages of the Virgin Islands, Attorney General Walker and his designees Cohen Milstein and Singer have subjected ExxonMobil, and are causing ExxonMobil to be subjected, to the deprivation of rights, privileges, and immunities secured by the United States Constitution and the Texas Constitution. ExxonMobil's rights are made enforceable against Defendants, all of whom are acting under the color of law, by the Due Process Clause of Section 1 of the Fourteenth Amendment to the United States Constitution and 48 U.S.C. § 1561, all within the meaning and contemplation of 42 U.S.C. § 1983, and by Section Nineteen of Article One of the Texas Constitution.

62. In addition, Defendants have committed an abuse of process under common law. Defendants issued the subpoena without the reasonable suspicion required by law and based on an ulterior motive to silence those who express views on climate change with which they disagree. Defendants' conduct has caused injury to ExxonMobil.

63. Absent relief, Defendants will continue to deprive ExxonMobil of these rights, privileges, and immunities.

VI. CAUSES OF ACTION

A. First Cause of Action

Violation of ExxonMobil's First and Fourteenth Amendment Rights
(48 U.S.C. § 1561 and 42 U.S.C. § 1983)

64. ExxonMobil repeats and realleges paragraphs 1 through 63 above as if fully set forth herein.

65. The subpoena's focus on one side of a policy debate in an apparent effort to silence, intimidate, and deter those possessing a particular viewpoint from participating in that debate contravenes, and any effort to enforce the subpoena would further contravene, the rights provided to ExxonMobil by the First Amendment to the United States Constitution, made applicable to the State of Texas by the Fourteenth Amendment and to the Virgin Islands by 48 U.S.C. § 1561, and by Section Eight of Article One of the Texas Constitution.

66. The subpoena improperly targets political speech and amounts to an impermissible content-based restriction on speech. The effect of the subpoena is to (i) deter ExxonMobil from participating in the public debate over climate change now and in the future and (ii) chill others from expressing an opinion on climate change that runs counter to the view held by a coalition of some state officials, including Attorney General Walker, now and in the future.

67. The subpoena does not constitute the least restrictive means of accomplishing any compelling government purpose and is not narrowly tailored to advance any compelling government interest.

B. Second Cause of Action

Violation of ExxonMobil's Fourth and Fourteenth Amendment Rights
(48 U.S.C. § 1561 and 42 U.S.C. § 1983)

68. ExxonMobil repeats and realleges paragraphs 1 through 67 above as if set forth fully herein.

69. Defendants' issuance and mailing of the subpoena on ExxonMobil contravenes, and any effort to enforce the subpoena would further contravene, the rights provided to ExxonMobil by the Fourth Amendment to the United States Constitution,

made applicable to the State of Texas by the Fourteenth Amendment and to the Virgin Islands by 48 U.S.C. § 1561, and by Section Nine of Article One of the Texas Constitution to be secure in its papers and effects against unreasonable searches and seizures.

70. The subpoena is an unreasonable search and seizure because it is vastly overbroad, constitutes an abusive fishing expedition, and imposes an unwarranted burden on ExxonMobil.

C. Third Cause of Action

Violation of ExxonMobil's Fifth and Fourteenth Amendment Rights
(48 U.S.C. §§ 1561, § 1571, 1591, 1611, and 42 U.S.C. § 1983)

71. ExxonMobil repeats and realleges paragraphs 1 through 70 above as if fully set forth herein.

72. Attorney General Walker's delegation of investigative and prosecutorial authority to Cohen Milstein and Singer contravenes the rights provided to ExxonMobil by the Fifth Amendment to the United States Constitution, made applicable to the State of Texas by the Fourteenth Amendment and to the Virgin Islands by 48 U.S.C. § 1561, and by Section Nineteen of Article One of the Texas Constitution not to be deprived of life, liberty, or property without due process of law, as well as the separation of powers doctrine made applicable to the Virgin Islands by 48 U.S.C. §§ 1571, 1591, and 1611.

73. The delegation of Defendant Walker's investigative and prosecutorial authority violates the due process of law because (i) this investigation could result in penalties available only to government prosecutors; (ii) Cohen Milstein and Singer are believed to be compensated on a contingency fee basis; and (iii) Cohen Milstein is engaged in ongoing and unusually contentious litigation against ExxonMobil.

D. Fourth Cause of Action

Abuse of Process Claim

74. ExxonMobil repeats and realleges paragraphs 1 through 73 above as if fully set forth herein.

75. Defendants committed an abuse of process under common law by (i) issuing and mailing the subpoena without reasonable suspicion, as required by the authorizing statute, in what amounts to a fishing expedition; (ii) having an ulterior motive for issuing and mailing the subpoena, namely an intent to prevent ExxonMobil from exercising its right to express views disfavored by Defendants and to extract an unwarranted financial settlement from ExxonMobil; and (iii) causing injury to ExxonMobil's reputation and its ability to exercise its First Amendment rights as a result.

E. Fifth Cause of Action

Declaration of the Parties' Respective Rights
(Tex. Civ. Prac. & Rem. Code § 37.003)

76. ExxonMobil repeats and realleges paragraphs 1 through 75 above as if fully set forth herein.

77. For the foregoing reasons, ExxonMobil is entitled to a declaration that enforcement of the subpoena, as drafted, against ExxonMobil is impermissible under the First, Fourth, Fifth, and Fourteenth Amendments to the United States Constitution and 48 U.S.C. § 1561 and under Sections Eight, Nine, and Nineteen of Article One of the Texas Constitution, and constitutes an abuse of process under common law.

VII. PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays that judgment be entered against Defendants as follows:

1. That a declaratory judgment be entered pursuant to Tex. Civ. Prac. & Rem. Code § 37.003, declaring that the issuance and mailing of the subpoena violates ExxonMobil's rights under the First, Fourth, Fifth, and Fourteenth Amendments to the United States Constitution, 48 U.S.C. § 1561, and Sections Eight, Nine, and Nineteen of Article One of the Texas Constitution;

2. That a declaratory judgment be entered pursuant to Tex. Civ. Prac. & Rem. Code § 37.003, declaring that the issuance and mailing of the subpoena constitutes an abuse of process, in violation of common law;

3. All costs of court together with any and all such other and further relief as this Court may deem proper.

Dated: April 13, 2016

EXXON MOBIL CORPORATION

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Exhibit MM

The New York Times http://nyti.ms/2bs9dyJ

SCIENCE

Exxon Mobil Fraud Inquiry Said to Focus More on Future Than Past

By JOHN SCHWARTZ AUG. 19, 2016

For more than a year, much of the public scrutiny of **Exxon Mobil** was captured by the #Exxonknew hashtag — shorthand for revelations about decades-old research on **climate change** conducted by the company while it funded groups promoting doubt about climate science.

Articles about that research have energized protests against Exxon Mobil and the fossil fuel industry and had a role in initiating queries by at least five attorneys general, led by **Eric T. Schneiderman** of New York.

Early on, his office demanded extensive emails, financial records and other documents from the **oil** company, leaving many observers with the impression that a deeper look into the company's past was the focus of the investigation.

But in an extensive interview, Mr. Schneiderman said that his investigation was focused less on the distant past than on relatively recent statements by Exxon Mobil related to climate change and what it means for the company's future.

In other words, the question for Mr. Schneiderman is less what Exxon knew, and more what it predicts.

For example, he said, the investigation is scrutinizing a **2014 report** by Exxon Mobil stating that global efforts to address climate change would not mean that it had to leave enormous amounts of oil reserves in the ground as so-called "stranded assets."

But many scientists have suggested that if the world were to burn even just a portion of the oil in the ground that the industry declares on its books, the planet would heat up to such dangerous levels that "there's no one left to burn the rest," Mr. Schneiderman said.

By that logic, the Exxon Mobil will have to leave much of its oil in the ground, which means the company's valuation of its reserves is off by a significant amount.

"If, collectively, the fossil fuel companies are overstating their assets by trillions of dollars, that's a big deal," Mr. Schneiderman said. And if the company's own internal research shows that Exxon Mobil knows better, he added, "there may be massive securities fraud here."

Alan Jeffers, a spokesman for Exxon, dismissed the idea that its forecast could be viewed as fraudulent.

"If it turns out to be wrong, that's not fraud, that's wrong," he said. "That's why we adjust our outlook every year, and that's why we issue the annual forecast publicly, so people can know the basis of our forecasting."

The company has said allegations that it secretly developed a definitive understanding of climate change before the rest of the world's scientists are "**preposterous.**"

Mr. Schneiderman has praised reports from publications, including **Inside Climate News** and the **Los Angeles Times**, that detailed Exxon Mobil's past research.

And all indications were that his office planned to use its subpoena powers to unearth new documents that might show a disconnect between what the company was saying publicly and what it was saying privately about climate change over several decades.

In the interview, however, Mr. Schneiderman said his focus lay elsewhere. "The older stuff really is just important to establish knowledge and the framework and to look for inconsistencies."

He called his efforts a straightforward fraud investigation, like many that he and his predecessors have taken on in subjects as wide-ranging as the crash of mortgage-backed securities and Volkswagen's diesel engine deceptions.

Mr. Schneiderman also mentioned, as an example of questionable public statements by Exxon Mobil, congressional testimony in 2010 by its chief executive, Rex Tillerson, who said that while the company acknowledged that humans were affecting the climate through greenhouse gas emissions to some degree, it was not yet clear "to what extent and therefore what can you do about it."

Mr. Tillerson added, "There is not a model available today that is competent" for understanding the science and predicting the future.

Mr. Schneiderman disagrees, and cited the industry's own extensive climate research and the actions it has taken in response, including exploration in the melting Arctic and raising the decks of offshore oil platforms to compensate for rising sea level.

"These guys have the best science for their engineering purposes," he said. "We're confident they're not wasting shareholder dollars to do things that are inconsistent with the science they have internally."

Since November, when the investigation was first revealed, and as other state attorneys general announced their support, Mr. Schneiderman's intentions have been questioned and, he said, misconstrued.

Supporters of Exxon Mobil have accused him and his colleagues of using prosecutorial powers to pursue political ends and of trying to squelch the First Amendment rights of the company, its scientists and anyone who agrees with them.

Lamar Smith, a congressman from Texas and chairman of the House Committee on Science, Space and Technology, accused the attorneys general of "pursuing a political agenda at the expense of scientists' rights to free speech" and has issued subpoenas demanding internal documents from Mr. Schneiderman and another state attorney general, as well as eight groups that have supported the investigations.

Hans von Spakovsky, a conservative commentator, compared the investigation by the attorneys general to the Spanish Inquisition, and the Daily Caller asked whether Mr. Schneiderman had suggested "jailing global warming skeptics."

Mr. Schneiderman talks about such accusations with incredulity.

"This is an investigation," he said. "It is a civil fraud case. No one is being prosecuted — we're not out to silence dissenting views." He has said, however, that if criminal actions turn up in the evidence the state gathers, criminal charges could be filed.

When asked about the First Amendment implications of investigating Exxon's statements, he repeated a sentence he has uttered many times: "The First Amendment doesn't protect you for fraud."

He added, "Three-card monte operators can't say, 'Hey, I'm just exercising my First Amendment rights!'"

When asked about the focus of Mr. Schneiderman's investigation, Joel Seligman, an expert in securities law who is the president of the University of Rochester, said that "at some level, this is a plain-vanilla investigation — and there is no guarantee it will lead to a case."

Exxon Mobil has sued to block subpoenas from Massachusetts and the United States Virgin Islands, but the company has provided hundreds of thousands of pages of documents to New York.

If the investigation does turn up the kind of evidence that could lead to a civil case, it is still unclear whether New York or the other states might win, said David M. Uhlmann, a former top federal prosecutor of environmental crime and a professor at the University of Michigan law school.

Until governments impose the kind of regulations that will lead to concrete action to slow or reverse climate change, he said, "We're going to continue to drill for oil and frack for gas." In that case, he continued, Exxon may "utilize a significant portion of its reserves, which means it may not even be wrong when it states that it expects to utilize its reserves."

Even if Exxon is wrong in saying that it expects to be able to use all its reserves, "The question is whether they know that they are wrong and are therefore lying to investors," he added.

The investigation, Mr. Schneiderman said, mirrors an earlier inquiry into a coal giant, Peabody Energy. In 2013, he issued subpoenas for internal documents related to climate change, and found false statements to shareholders and the Securities and Exchange Commission. "Simple stuff like 'it's impossible to predict the effect of a carbon tax on the coal market,' and they paid a consultant a lot of money to predict the effect of a carbon market," he said.

Peabody signed an agreement pledging to properly disclose the climate risk to its business.

Mr. Schneiderman has also been accused of conspiring with environmental groups, but he said, "People bring information to us all the time. If it's got merit to it, we follow up on it."

Groups like the Union of Concerned Scientists have investigated the fossil fuel industry for years, he said, and so "it would be malpractice for us not to meet with people like this."

The industry's tactics come "straight out of the tobacco playbook," he said. "It's delay, and sowing doubt."

Mr. Schneiderman has refused to comply with the congressman's subpoena, stressing the importance of federalism — normally an argument used by conservatives against federal overreach.

When asked for comment, Kristina Baum, a spokeswoman for the Science committee, said that Mr. Smith was unavailable.

Exhibit NN

THE COMMONWEALTH OF MASSACHUSETTS
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July 26, 2016

The Honorable Lamar Smith
Chairman
House Committee on Science, Space, and Technology
2321 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Smith:

I am Chief Legal Counsel for Massachusetts Attorney General Maura Healey, and I write in response to the July 13, 2016, subpoena issued to her by the House Committee on Science, Space, and Technology (the "Committee"). The subpoena is sweeping in its scope and completely unprecedented in its intended interference with an ongoing regulatory investigation by a state's attorney general. The subpoena seeks "all documents and communications between any officer or employee of the Office of the Attorney General of Massachusetts" (the "Office") and nine non-profit organizations and other groups, "any other state attorney general office," and "any official or employee of the U.S. Department of Justice, U.S. Environmental Protection Agency, or the Executive Office of the U.S. President," "referring or relating to the [Office's] investigation or potential prosecution of companies, nonprofit organizations, scientists, or other individuals related to the issue of climate change."[1]

Attorney General Healey hereby objects to the subpoena as an unconstitutional and unwarranted interference with a legitimate ongoing state investigation. The subpoena is a dangerous overreach by the Committee and an affront to states' rights. The Committee's majority members (the "Majority") arranged for the subpoena in disregard of the detailed letters from Attorney General Healey and the Ranking Member of the Committee setting forth why the Committee has no legal authority to tamper with a state attorney general's investigation into possible violations of state law by Exxon Mobil Corporation ("Exxon"). The Majority also disregarded Attorney General Healey's objection that most of the documents being requested are either attorney-client privileged documents or protected from disclosure as attorney work product. The Majority delivered the subpoena without even acknowledging Attorney General Healey's offers to discuss her objections in a conference call with the Chairman and/or Committee staff. This sequence of events suggests that the Majority had no intention of considering the substance of Attorney General Healey's objections.[2]

[1] Subpoena, July 13, 2016, pg. 2.
[2] We remain willing to confer by telephone with you as Chairman and/or your staff to discuss Attorney General Healey's objections to the subpoena, as outlined in this letter, provided that the Ranking Member and/or her staff are invited and permitted to participate.

You, Mr. Chairman, yourself reportedly have conceded that the subpoena of a state attorney general is unprecedented in the history of Congress.[3] None of the cases cited by the Committee in any of its correspondence with Attorney General Healey provides authority for the proposition that a Congressional committee can subpoena a sitting state attorney general about a pending investigation by his or her office. Congressional and Committee rules provide no such explicit power, the courts have never recognized such power, and the few legal decisions that the Majority's letters mention relate to quite different situations and therefore provide no authority for the Committee's subpoena. Because the subpoena is unconstitutional and otherwise unlawful, Attorney General Healey respectfully objects to its issuance and declines to produce to the Committee documents related to the Office's ongoing investigation of Exxon.

BACKGROUND FACTS

The Attorney General Is the Chief Law Enforcement Officer in Massachusetts and Has Broad Powers of Investigation.

Attorney General Healey is an elected constitutional officer in the state of Massachusetts and is the highest ranking law enforcement official. Mass. Gen. L. c. 12 § 3. The Attorney General determines legal policy for the state and brings legal actions on behalf of the state. *Feeney v. Commonwealth*, 373 Mass. 359, 366 N.E.2d 1262 (1977); Mass. Gen. L. c. 12 § 5. Attorney General Healey also has various enumerated statutory powers, including the prevention or remedy of damage to the environment, Mass. Gen. L. c. 12 § 11D, and enforcement of the state's consumer protection law, Chapter 93A of the Massachusetts General Laws ("Chapter 93A"), which proscribes unfair and deceptive practices in the conduct of business. In Massachusetts the Attorney General is authorized to protect investors, consumers, and other persons in the state against unfair and deceptive business practices through such mechanisms as promulgating regulations, conducting investigations through civil investigative demands ("CID"), and instituting litigation.[4]

CIDs under Chapter 93A are a crucial tool for gaining information regarding whether an entity under investigation has violated the statute. Since the beginning of 2013, the Office has issued several hundred CIDs pursuant to Chapter 93A to or regarding companies or individuals suspected of committing unfair and deceptive business practices or other illegal conduct. These Chapter 93A investigations have addressed, among other things, foreclosure practices of banks, business practices in the pharmaceutical industry, and marketing of other products and services sold in the state. The Office issued some CIDs as part of joint investigations with other regulators: about 25 CIDs were issued in connection with joint investigations with other states, about 30 were issued in connection with joint investigations involving the federal government, and several involved joint investigations with other states as well as the federal government.

Attorney General Healey's office routinely issues CIDs to large publicly traded companies with business dealings in the state but with principal places of business outside of Massachusetts. Examples since 2013 which have become public through settlement with the target companies

[3] Amanda Reilly, *Smith subpoenas AGs, enviro groups in escalating fight*, Energy & Environment Daily, July 14, 2016, http://www.eenews.net/eedaily/2016/07/14/stories/1060040258.
[4] Mass. Gen. L. c. 93 §§ 8, 9; Mass. Gen. L. c. 93A §§ 4, 6.

include: a joint investigation with federal authorities (targeting Oppenheimer[5]); three investigations in which the Office worked with the U.S. government and a small group of states (Citigroup,[6] JPMorgan,[7] and Chase Bank[8]); three which the Office undertook with a large multistate enforcement group (Ocwen,[9] Moneygram,[10] and HSBC[11]); and one investigation with one other state attorney general as a partner (LPL Financial[12]). A very recent, visible example is the Office's 2016 participation in a joint multistate investigation into Volkswagen's "clean diesel" deception, which resulted in a partial settlement providing Massachusetts with nearly $100 million in Chapter 93A civil penalties and environmental mitigation payments.[13]

Nearly every other state attorney general has CID or similar investigative authority.[14]

The Office's Longstanding Efforts on Climate Change.

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[5] Press Release, Commonwealth of Massachusetts Office of the Attorney General, Oppenheimer to Pay $2.8 Million to Settle Allegations of Misrepresenting Performance of Fund to Investors (Mar. 11, 2013), http://www.mass.gov/ago/news-and-updates/press-releases/2013/2013-03-11-oppenheimer-settlement.html.

[6] Press Release, Commonwealth of Massachusetts Office of the Attorney General, CitiGroup to Pay $7 Billion in Federal-State Deal Over Mortgage Backed Securities (July 14, 2014), http://www.mass.gov/ago/news-and-updates/press-releases/2014/2014-07-14-citigroup-settlement.html.

[7] Press Release, Commonwealth of Massachusetts Office of the Attorney General, JPMorgan to Pay $13 Billion in Federal-State Deal Over Mortgage Backed Securities (Nov. 19, 2013), http://www.mass.gov/ago/news-and-updates/press-releases/2013/2013-11-19-jpmorgan-settlement.html.

[8] Press Release, Commonwealth of Massachusetts Office of the Attorney General, Chase Bank to Pay $136 Million in Nationwide Settlement Over Unlawful Credit Card Debt Collection Practices (July 8, 2015), http://www.mass.gov/ago/news-and-updates/press-releases/2015/2015-07-08-chase-settlement.html.

[9] Press Release, Commonwealth of Massachusetts Office of the Attorney General, Ocwen to Provide $2.1 Billion in Relief to Homeowners in State-Federal Settlement Over Loan Servicing Misconduct (Dec. 19, 2013), http://www.mass.gov/ago/news-and-updates/press-releases/2013/2013-12-19-ocwen-settlement.html.

[10] Press Release, Commonwealth of Massachusetts Office of the Attorney General, MoneyGram to Pay $13 Million in Multistate Settlement Over Wire Transfer Scams, AG Healey Offers Tips for Consumers (Feb. 11, 2016), http://www.mass.gov/ago/news-and-updates/press-releases/2016/2016-02-11-moneygram-settlement.html.

[11] Press Release, Commonwealth of Massachusetts Office of the Attorney General, $470 Million State-Federal Settlement Reached with HSBC Over Unlawful Foreclosures, Loan Servicing (Feb. 5, 2016), http://www.mass.gov/ago/news-and-updates/press-releases/2016/470-million-state-federal-settlement-reached-with-hsbc-over-unlawful-foreclosures-loan-servicing.html.

[12] Press Release, Commonwealth of Massachusetts Office of the Attorney General, Boston Firm to Pay $1.8 Million for Selling Unsuitable Investments to Consumers (Sept. 23, 2015), http://www.mass.gov/ago/news-and-updates/press-releases/2015/2015-09-23-lpl-financial-aod.html.

[13] Press Release, Volkswagen of America, Inc., Volkswagen Reaches Settlement Agreement with U.S. Federal Regulators, Private Plaintiffs and 44 U.S. States on TDI Diesel Engine Vehicles (June 28, 2016), http://media.vw.com/release/1214/. On July 19, 2016, Massachusetts announced the filing of an additional state suit against Volkswagen for matters not covered under the settlement. Press Release, N.Y. State Office of the Attorney General, NY A.G. Schneiderman, Massachusetts A.G. Healey, Maryland A.G. Frosh Announce Suits Against Volkswagen, Audi And Porsche Alleging They Knowingly Sold Over 53,000 Illegally Polluting Cars And SUVs, Violating State Environmental Laws (July 19, 2016), http://www.ag.ny.gov/press-release/ny-ag-schneiderman-massachusetts-ag-healey-maryland-ag-frosh-announce-suits-against.

[14] *See, e.g.*, Fla. Stat. Ann. Fla. Stat. Ann. § 542.28 (West 2016); 740 Ill. Comp. Stat. Ann. 10/7.2 (West 2016); Minn. Stat. Ann. § 8.31 (West 2016); N.Y. Exec. Law § 63 (McKinney 2016); N.Y. Gen. Bus. Law §§ 343, 352 (McKinney 2016); Ohio Rev. Code Ann §§ 1331.16, 1345.06 (West 2016); S.C. Code Ann. §39-5-70 (2016); Tex. Bus. & Com. Code Ann. §15.10 (West 2015); Wash. Rev. Code Ann. §19.86.110 (West 2016).

For years the Office has been a leader in addressing the threat of climate change, often in collaboration with other state attorneys general. The Office led the federal litigation that resulted in the United States Supreme Court's determination in *Massachusetts v. EPA* that greenhouse gases are pollutants warranting regulation under the federal Clean Air Act. *See Massachusetts v. EPA*, 549 U.S. 497 (2007). In the intervening decade, Massachusetts's injuries from climate change—and the scientific predictions of future injuries—have only grown more devastating.[15] In subsequent litigation, the Office has worked closely with other states to advocate for and defend federal findings and regulations addressing climate change under the Clean Air Act, including the EPA's Clean Power Plan regulations to reduce power plant greenhouse gas emissions and the EPA's recent regulations regarding methane emissions from oil and gas facilities. Massachusetts has itself enacted laws that require reductions in greenhouse gas emissions and encourage strategies to reduce reliance on fossil fuels, including the Global Warming Solutions Act, Mass. Gen. L. c. 21N, and the Green Communities Act, 2008 Mass. Legis. Serv. Ch. 169 (S.B. 2768) (West).

We understand, that you, Mr. Chairman, have raised questions about the causes of climate change and the extent to which human activity versus other factors such as "natural cycles" and "sun spots" contribute to this problem.[16] Nevertheless, as state and federal law recognize, the overwhelming scientific evidence indicates that human activity, and the burning of fossil fuels in particular, are key drivers of climate change. *See, e.g.*, Intergovernmental Panel on Climate Change, 2014 Synthesis Report, Summary for Policymakers at 2-5 ("Human influence on the climate system is clear, and recent anthropogenic emissions of greenhouse gases are the highest in history. Recent climate changes have had widespread impacts on humans and natural systems. . . . Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and oceans have warmed, the amounts of snow and ice have diminished, and sea level has risen. . . . Emissions of CO2 from fossil fuel combustion and industrial processes contributed about 78% of the total GHG emissions increase from 1970 to 2010, with a similar percentage contribution for the increase during the period 2000 to 2010. Globally, economic and population growth continued to be the most important drivers of increases in CO2 emissions from fossil fuel combustion.") (internal citations omitted).[17]

The Investigation into Exxon.

Exxon is the largest publicly-traded oil and gas corporation in the world.[18] In 2015, *The Los Angeles Times*, in cooperation with the Columbia University School of Journalism[19] and the news

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[15] *See, e.g.*, Jess Bigood, *At a Cape Cod Landmark, a Strategic Retreat From the Ocean*, N. Y. Times, July 6, 2016, http://www.nytimes.com/2016/07/07/us/at-a-cape-cod-landmark-a-strategic-retreat-from-the-ocean.html?_r=3 ("managed retreat" implemented on Cape Cod beaches); David Abel, *Climate change could be even worse for Boston than previously thought*, Boston Globe, June 22, 2016, https://www.bostonglobe.com/metro/2016/06/22/climate-change-could-have-even-worse-impact-boston-than-previously-expected/S6hZ4nDPeUWNyTsx6ZckuL/story.html.

[16] Bill Lambrecht, *Smith tries to take NASA out of climate research*, San Antonio Express News, May 16, 2015, http://www.expressnews.com/news/local/article/Smith-tries-to-take-NASA-out-of-climate-research-6268551.php.

[17] IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.

[18] ExxonMobil, *About us*, http://corporate.exxonmobil.com/en/company/about-us (last visited July 25, 2016).

[19] Sara Jerving, Katie Jennings, Masako Melissa Hirsch, and Susanne Rust, *What Exxon knew about the Earth's melting Arctic*, Los Angeles Times, Oct. 9, 2015, http://graphics.latimes.com/exxon-arctic/.

organization InsideClimate News,[20] published a series of investigative reports and internal Exxon and other documents establishing that Exxon had a robust climate change scientific research program in the late 1970s into the 1980s that documented the serious potential for climate change, the likely contribution of fossil fuels (the company's chief product) to climate change, and the risks of climate change to the world's natural and economic systems, including Exxon's own assets and businesses.[21] By July 1977, Exxon's own scientists informed Exxon management that the release of carbon dioxide from burning fossil fuels was causing global temperatures to increase, a situation that would, the scientists warned Exxon management, give rise to "the need for hard decisions regarding changes in energy strategies."[22] Exxon's scientists were, in the early 1980s, predicting significant increases in global temperature as a result of the combustion of fossil fuels, and that a 2 to 3 degree Celsius increase could lead to melting of polar ice, rising sea levels, "redistribution of rainfall," "accelerated growth of pests and weeds," "detrimental health effects," and "population migration."[23] Exxon's scientists advised Exxon management that it would be possible to "avoid the problem by sharply curtailing the use of fossil fuels."[24] One Exxon scientist warned in no uncertain terms that it was "distinctly possible" that the effects of climate change over time will "indeed be catastrophic (at least for a substantial fraction of the earth's population)."[25]

Exxon's scientists understood that doubling of atmospheric carbon dioxide would occur "sometime in the latter half of the 21st century," and that "CO2-induced climate changes should be observable well before doubling."[26] Exxon's own scientists agreed with the scientific consensus that "a doubling of atmospheric CO2 from its pre-industrial revolution value would result in an average global temperature rise of (3.0 ± 1.5) [degrees Celsius]."[27] Exxon also knew what that would mean for humanity and ecological systems: "There is unanimous agreement in the scientific community that a temperature increase of this magnitude would bring about significant changes in the earth's climate, including rainfall distribution and alternations in the biosphere."[28] Nevertheless, even as of

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[20] https://insideclimatenews.org/content/Exxon-The-Road-Not-Taken; InsideClimate News was nominated for a Pulitzer Prize for its work on the Exxon investigation and the Road Not Taken Series. *See* https://insideclimatenews.org/news/18042016/insideclimate-news-pulitzer-prize-finalist-exxon-investigation.

[21] According to InsideClimate News, its "reporters interviewed former Exxon employees, scientists, and federal officials, and consulted hundreds of pages of internal Exxon documents, many of them written between 1977 and 1986." Neela Banerjee, et al., *Exxon: The Road Not Taken* (InsideClimate News 2015) at 2. InsideClimate News also reviewed "thousands of documents from archives including those held at the University of Texas-Austin, the Massachusetts Institute of Technology and the American Association for the Advancement of Science." *Id.*

[22] Shannon Hall, *Exxon Knew About Climate Change Almost 40 Years Ago: A new investigation shows the oil company understood the science before it became a public issue and spent millions to promote misinformation*, Scientific American, Oct. 26, 2015, http://www.scientificamerican.com/article/exxon-knew-about-climate-change-almost-40-years-ago/.

[23] Henry Shaw, *CO2 Greenhouse and Climate Issues* (March 28, 1984), https://insideclimatenews.org/sites/default/files/documents/Shaw%20Climate%20Presentation%20%281984%29.pdf.

[24] *Id.*

[25] Roger W. Cohen, Interoffice Memorandum to W. Glass (Aug. 18, 1981), http://insideclimatenews.org/sites/default/files/documents/%2522Catastrophic%2522%20Effects%20Letter%20%281981%29.pdf.

[26] Letter from Exxon scientist Roger W. Cohen to A.M. Natkin, Exxon Office of Science and Technology (Sept. 2, 1982), https://insideclimatenews.org/sites/default/files/documents/%2522Consensus%2522%20on%20CO2%20Impacts%20%281982%29.pdf

[27] *Id.*

[28] *Id.*

this year, 2016, Exxon continues to tell its investors that "[w]e are confident that none of our hydrocarbon reserves are now or will become stranded,"[29] and maintains that, "[w]hile most scientists agree climate change poses risks related to extreme weather, sea-level rise, temperature extremes, and precipitation changes, current scientific understanding provides limited guidance on the likelihood, magnitude, or time frame of these events."[30]

Additionally, Exxon made statements in 1980 at an American Petroleum Institute AQ-9 Task Force meeting that demonstrated its knowledge of the fact that as fossil fuels continue to be burned, a "global average 2.5 C rise [is] expected by 2038," which would cause "major economic consequences."[31] They further projected that at a "3% per annum growth rate of CO2, a 2.5 C rise brings world economic growth to a halt in about 2025," and that a "5 C rise" by 2067 will have "globally catastrophic effects."[32] In a 1982 memo to Exxon management, a manager at the Exxon Research and Engineering Company Environmental Affairs Program showed concern and predicted that climate change would cause "disturbances in the existing global water distribution balance" and would have "a dramatic impact on soil moisture, and in turn, on agriculture," stating "there are some potentially catastrophic events that must be considered," including the melting of the Antarctic ice sheet causing a 5 meter sea level rise, and "flooding much of the U.S. East Coast, including the State of Florida and Washington D.C."[33] At an environmental conference presentation in 1984, another Exxon scientist stated "[w]e can either adapt our civilization to a warmer planet or avoid the problem by sharply curtailing the use of fossil fuels."[34] These statements contrast sharply to statements made by Exxon in 2014 ("[w]e are confident that none of our hydrocarbon reserves are now or will become stranded."[35]) and 2016 ("[o]il will provide one third of the world's energy in 2040, remaining the No. 1 source of fuel, and natural gas will move into second place."[36]). These recent statements fail to mention any of the previous research, projections, or concerns that were expressed by Exxon's own scientists and disseminated within the company and industry in the 1980s; they instead portray, to a public unaware of this research, a bright future for the Exxon and the oil industry.

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[29] *Energy and Carbon--Managing the Risks* (Exxon, 2014) at 1.

[30] ExxonMobil website, Meeting global needs--managing climate business risks, *available at* http://corporate.exxonmobil.com/en/current-issues/climate-policy/climate-perspectives/managing-climate-change-business-risks.

[31] Minutes of the Feb. 29, 1980 meeting of the American Petroleum Institute AQ-9 Task Force (of which Exxon is a member) (Mar. 18, 1980), *available at* https://insideclimatenews.org/sites/default/files/documents/AQ-9%20Task%20Force%20Meeting%20%281980%29.pdf.

[32] *Id.*

[33] Memorandum from M.B. Glaser, Manager, Exxon Research and Engineering Company Environmental Affairs Program, to a broad distribution list of Exxon management, attaching a summary of the CO2 "Greenhouse Effect" and CO2 Greenhouse Effect Technical Review (Nov. 12, 1982), available at https://insideclimatenews.org/sites/default/files/documents/1982%20Exxon%20Primer%20on%20CO2%20Greenhouse%20Effect.pdf.

[34] Henry Shaw, "CO2 Greenhouse and Climate Issues" (Mar. 28, 1984), *available at* https://insideclimatenews.org/sites/default/files/documents/Shaw%20Climate%20Presentation%20%281984%29.pdf

[35] Energy and Carbon – Managing the Risks (Exxon, 2014) at 1.

[36] Press Release, ExxonMobil, ExxonMobil's Energy Outlook Projects Energy Demand Increase and Decline in Carbon Intensity (Jan. 25, 2016), http://news.exxonmobil.com/press-release/exxonmobils-energy-outlook-projects-energy-demand-increase-and-decline-carbon-intensit.

Despite its research and knowledge, Exxon appears to have engaged with other fossil fuel interests in a campaign from at least the 1990s onward to prevent government action to reduce greenhouse gas emissions.[37] In 1998, Exxon's Randy Randol participated as a member of the "Global Climate Science Communications Team," which engaged in a concerted effort to challenge the "scientific underpinning of the global climate change theory" in the media, and which took the position that "[i]n fact, it [sic] not known for sure whether (a) climate change actually is occurring, or (b) if it is, whether humans really have any influence on it."[38] A draft plan prepared by that team noted that "[u]nless 'climate change' becomes a non-issue, meaning that the Kyoto proposal is defeated and there are no further initiatives to thwart the threat of climate change, there may be no moment when we can declare victory for our efforts."[39]

In addition to undertaking efforts to forestall government action on climate change that would reduce the use of fossil fuel products in the United States, Exxon seemingly failed to disclose its knowledge of climate change threats in a fully candid way to investors in its securities and to consumers to whom it continued to market and sell such products.

Concerns that Exxon has not adequately disclosed climate risk to Massachusetts investors in its securities appear to be reflected in recent actions by Exxon shareholders (including Massachusetts-based shareholders) to compel the company to more fully assess and respond to climate risks. In the past year Exxon shareholders came close to passing resolutions that would have required Exxon to implement "stress tests" to ascertain more specifically the climate-driven risks to Exxon's businesses. As the Wall Street Journal reported, the proposals "drew more support than any contested climate-related votes" in Exxon's history, and indicate that "more mainstream shareholders like pension funds, sovereign wealth funds, and asset managers are starting to take more seriously" the effects on Exxon of a "global weaning from fossil fuels."[40]

Following the publication of the investigative reports and documents by the Los Angeles Times and others, on or about November 5, 2015, New York Attorney General Eric Schneiderman issued a subpoena to Exxon under New York's Martin Act, seeking documents regarding Exxon's climate research and its communications to investors and consumers about the risks of climate change and the effect of those risks on Exxon's business.[41] According to press statements by the New York

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[37] *See, e.g.*, Draft Global Climate Science Communications Action Plan (Apr. 3, 1998), https://insideclimatenews.org/sites/default/files/documents/Global%20Climate%20Science%20Communications%20Plan%20%281998%29.pdf.
[38] *Id.*
[39] *Id.*
[40] Bradley Olson & Nicole Friedman, *Exxon, Chevron Shareholders Narrowly Reject Climate-Change Stress Tests*, The Wall Street Journal, May 25, 2016 http://www.wsj.com/articles/exxon-chevron-shareholders-narrowly-reject-climate-change-stress-tests-1464206192; *see also, e.g.*, Natasha Lamb & Bob Litterman, *Really? Exxon left the risk out of its climate risk report*, GreenBiz, Mar. 28, 2014, https://www.greenbiz.com/blog/2014/05/28/exxonmobil-left-risk-out-climate-risk-report (coauthored by executive at Massachusetts-based Exxon shareholder Arjuna Captial).
[41] Justin Gillisand Clifford Krauss, *Exxon Mobil Investigated for Possible Climate Change Lies by New York Attorney General*, N.Y. Times, Nov. 5, 2015, http://www.nytimes.com/2015/11/06/science/exxon-mobil-under-investigation-in-new-york-over-climate-statements.html.

Attorney General, Exxon is cooperating with the subpoena and has produced more than 700,000 pages of documents so far.[42]

In January 2016, at the request of members of Congress, the Department of Justice asked the Federal Bureau of Investigation to investigate whether Exxon should be prosecuted under the federal Racketeer Influenced and Corrupt Organizations Act, based on the documents released by journalists.[43] United States Attorney General Lynch recently confirmed that the investigation is ongoing.[44]

And in early July 2016, nineteen members of the Senate called for an end to fossil fuel companies', including Exxon's, climate change "misinformation campaign to mislead the public and cast doubt in order to protect their financial interest,"[45] and offered support for a resolution urging fossil fuel companies to cooperate with "active or future investigation into (A) their climate-change related activities; (B) what they knew about climate change and when they knew that information; (C) what they knew about the harmful effects of fossil fuels on the climate; and (D) any activities to mislead the public about climate change."[46]

Given the obligations of the Office to prevent damage to the state's environment and protect Massachusetts investors and consumers against unfair and deceptive business practices, the history of the Office's efforts on climate change, the press revelations about Exxon's apparent undisclosed knowledge about the impact of fossil fuel use on climate change, and the various investigations by other state and federal officials, the Office began looking into Exxon-related issues and determined that an investigation pursuant to Chapter 93A would be warranted. A critical issue under Massachusetts law is whether Exxon told investors and consumers, or led them to believe, that it was appropriate and safe for Exxon to utilize its substantial fossil fuel reserves for the manufacture and sale of petroleum products with knowledge, based on its extensive research, that such practices would cause significant climate change and harm to the world.

In March 2016 the New York Attorney General, Attorney General Healey, and several other attorneys general met in New York and discussed at a press conference their cooperation on a number of national environmental issues.[47] Attorney General Healey announced that her office also would be investigating Exxon's climate change research and public communications to investors

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[42] Phil McKenna, *Virgin Islands and Exxon Agree to Uneasy Truce Over to Climate Probe*, InsideClimate News, July 7, 2016, https://insideclimatenews.org/news/06072016/virgin-islands-exxon-agree-climate-probe-subpoena-claude-walker-schneiderman-healey.

[43] https://www.documentcloud.org/documents/2730475-DOJ-RESPONSE.html; http://www.rollingstone.com/politics/news/did-exxon-lie-about-global-warming-20160630.

[44] Amanda Reilly, *Fossil fuel backers accused of 'calculated disinformation,'* Energy and Environment Daily, June 23, 2016, http://www.eenews.net/eedaily/2016/06/23/stories/1060039264.

[45] James Osborne, *19 Senate Democrats call out Exxon, fossil fuel industry on climate change denial*, FuelFix, July 11, 2016, http://fuelfix.com/blog/2016/07/11/19-senate-democrats-call-out-exxon-fossil-fuel-industry-on-climate-change-denial/.

[46] S. Con. Res. 45, 114th Cong. (2016).

[47] Press Release, N.Y. State Office of the Attorney General, A.G. Schneiderman, Former Vice President Al Gore And A Coalition Of Attorneys General From Across The Country Announce Historic State-Based Effort To Combat Climate Change (Mar. 29, 2016), http://www.ag.ny.gov/press-release/ag-schneiderman-former-vice-president-al-gore-and-coalition-attorneys-general-across.

and consumers. This press conference was not unusual; multi-state attorney general investigations, litigation, amicus briefs, and other collaborative efforts often have been accompanied by press announcements.[48]

The Office initiated an investigation of Exxon's potential liability for violations of Chapter 93A with respect to statements to investors and consumers. On April 19, 2016, the Office served Exxon's Massachusetts registered agent with its CID. The CID sought documents from Exxon on such topics as "Exxon's development, planning, implementation, review, and analysis of research efforts to study CO_2 emissions"; research on how the effects of climate change will affect Exxon's costs, marketability, and future profits; and how this information was communicated to consumers and investors.[49]

The Majority's Attempted Interference with State Investigations.

It appears that the issuance of the New York subpoena and the Massachusetts CID prompted the Committee to attempt an intervention into state attorneys' general investigations of Exxon. On May 18, 2016, Attorney General Healey received a letter from Chairman Smith and other Majority members of the Committee requesting that the Office produce "documents and communications between or among employees of the Office" and various non-profit organizations, other state attorneys general, and federal governmental bodies.[50] In its letter, the Majority attempted to justify the request on the grounds that the Office's investigation was an effort "to silence speech," coordinated through "[c]ollusion between the New York Attorney General and [e]xtremist [e]nvironmental [g]roups," and "may even amount to an abuse of prosecutorial discretion."[51] Attorney General Healey responded by letter on June 2, 2016, respectfully declining to produce the requested documents.[52] Attorney General Healey's response pointed out that the Committee mischaracterized the investigation because its true focus is on protecting consumers in the state; that under the Constitution, the Committee has no power to interfere with a state investigation because it

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[48] *See, e.g.*, Press Release, N.Y. State Office of the Attorney General, NY A.G. Schneiderman, Massachusetts A.G. Healey, Maryland A.G. Frosh Announce Suits Against Volkswagen, Audi And Porsche Alleging They Knowingly Sold Over 53,000 Illegally Polluting Cars And SUVs, Violating State Environmental Laws (July 19, 2016), http://www.ag.ny.gov/press-release/ny-ag-schneiderman-massachusetts-ag-healey-maryland-ag-frosh-announce-suits-against; Press Release, Commonwealth of Massachusetts Office of the Attorney General, AG Healey Joins Multistate Effort to Question Use of On-Call Shifts at Retail Stores (Apr. 13, 2016), http://www.mass.gov/ago/news-and-updates/press-releases/2016/2016-04-13-multistate-retail.html; Press Release, Commonwealth of Massachusetts Office of the Attorney General, AG Healey Joins Federal-State Crackdown on Four Cancer Charities Charged with Bilking $187 Million From Donors (May 19, 2016), http://www.mass.gov/ago/news-and-updates/press-releases/2015/2015-05-19-ftc-cancer-fund.html; Amici Curiae Brief in Support of Mississippi's Interlocutory Appeal, Google, Inc. v. Hood, 822 F.3d 212 (2016), 2015 WL 4094982 (C.A.5) (Appellate Brief).

[49] Civil Investigative Demand 2016-DPF-36, *ExxonMobil Corp v. Healey*, No. 4:16-cv-469, ECF No. 1 (Apr. 29, 2016), pg. 12-20.

[50] Letter from Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech., to Hon. Massachusetts Attorney General Maura Healey, Commonwealth of Massachusetts Office of the Attorney General (May 18, 2016), http://www.mass.gov/ago/docs/energy-utilities/exxon/sst-committee-request-for-information.pdf.

[51] *Id.*

[52] Letter from Richard A. Johnston, Chief Legal Counsel, Commonwealth of Massachusetts Office of the Attorney General to Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech. (June 2, 2016), http://www.mass.gov/ago/docs/energy-utilities/exxon/ma-letter-to-sst-committee.pdf.

is not a valid federal legislative purpose: and that the Majority had not identified any Congressional authorization to undertake an investigation into the enforcement activities of the Office.[53]

The Majority members reiterated their requests in a second letter sent on June 17, 2016.[54] This time, the Majority claimed that the Office's investigation had the potential "to chill scientific research" and referred to various House of Representatives' rules and a number of investigations that Congress had conducted in both international and domestic matters. None of the cited rules or prior investigations, however, involved Congressional investigation into the activities of a state attorney general to enforce state laws. Consequently, Attorney General Healey responded to the letter on June 24, 2016, reiterating her declination to produce documents to the Committee.[55] Ranking Committee Member Eddie Bernice Johnson wrote to you as Chairman as well, urging the cessation of "this abuse of authority" and the end of the "exceptionally unusual" document requests.[56]

The Majority members sent Attorney General Healey a third letter on July 6, 2016, threatening to use compulsory process.[57] This time the Majority referenced the importance of protecting scientific research and the similarities between Office's CID and the subpoena issued by the Attorney General of the Virgin Islands to Exxon and also cited three court decisions, none of which involved Congressional interference with a state attorney general's investigatory or enforcement powers under state law.[58] The next day, Ranking Member Johnson issued a statement condemning the "abuse of power" and "harassment" of the attorneys general and non-profit organizations to which the Majority members had issued such letters.[59] Attorney General Healey responded to this third letter in a letter sent July 13, 2016, stating that the Majority still had not furnished any valid legal authority for its requests for documents, and that she "continues respectfully to decline to provide the requested materials to the Committee." Attorney General Healey nevertheless indicated that she was "willing to confer by telephone" with Chairman Smith or his staff about objections to producing documents to the Committee, provided that Ranking Member Johnson and her staff were

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[53] *Id.*

[54] Letter from Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech., to Hon. Massachusetts Attorney General Maura Healey, Commonwealth of Massachusetts Office of the Attorney General (June 17, 2016), http://www.mass.gov/ago/docs/energy-utilities/exxon/sst-letter-to-ag-healey-06-17-2016.pdf.

[55] Letter from Richard A. Johnston, Chief Legal Counsel, Commonwealth of Massachusetts Office of the Attorney General to Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech. (June 24, 2016), http://www.mass.gov/ago/docs/energy-utilities/exxon/letter-lamarsmith-june24.pdf.

[56] Letter from Hon. Eddie Bernice Johnson, Ranking Member, H. Comm. on Science, Space, & Tech. to Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech. (June 23, 2016) pg. 1, 5, http://democrats.science.house.gov/sites/democrats.science.house.gov/files/documents/06.23.16%20-%20LTR%20to%20Smith%20re%20AG%20and%20Enviro%20Groups%20Oversight_0.pdf.

[57] Letter from Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech., to Hon. Massachusetts Attorney General Maura Healey, Commonwealth of Massachusetts Office of the Attorney General (July 6, 2016) pg. 3. http://www.mass.gov/ago/docs/energy-utilities/exxon/07-06-16-sst-letter-to-ma-ag.pdf.

[58] Letter from Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech., to Hon. Massachusetts Attorney General Maura Healey, Commonwealth of Massachusetts Office of the Attorney General (July 6, 2016) pg. 3.

[59] Press Release, H. Comm. on Science, Space, & Tech. Democrats, Ranking Member Johnson Response to the Chairman's Subpoena Threat (July 7, 2016), http://democrats.science.house.gov/press-release/ranking-member-johnson-response-chairman%E2%80%99s-subpoena-threat.

also invited and permitted to participate.[60] The Majority did not respond to Attorney General Healey's offer of a telephone conference.

Instead, a few hours after receiving Attorney General Healey's third letter (and a similar letter from the New York Attorney General), Committee staff sent a subpoena to Attorney General Healey,[61] and you as Chairman proceeded to hold a press conference announcing subpoenas to the New York Attorney General, Attorney General Healey, and several non-profit organizations. After the issuance of the subpoenas, Ranking Member Johnson, joined by Committee Member Congresswoman Clark and Congressmen Beyer and Tonko, issued a statement condemning the "unlawful subpoenas" issued by the Committee, which had the effect of creating the "Committee's unfortunate new reputation as a committee of witch hunts."[62]

On another front, on June 15, 2016, Exxon filed a civil complaint against Attorney General Healey in the United States District Court for the Northern District of Texas under 42 U.S.C. § 1983, alleging that the Office's investigation violated its constitutional rights, along with a motion for a preliminary injunction to enjoin Attorney General Healey from enforcing the CID issued to the company.[63] The following day, June 16, 2016, Exxon filed a petition in Massachusetts state court to set aside or modify the CID, along with an emergency motion seeking the same relief, and a request to stay the Massachusetts proceeding pending the outcome of the Texas proceeding. Those actions are still pending.[64] Exxon has not produced any documents in response to the Massachusetts CID.

LEGAL OBJECTIONS TO THE SUBPOENA

The Committee's subpoena—demanding access to privileged and protected documents relating to an on-going state investigation into a private party—is an unprecedented and unconstitutional attempt to interfere in Attorney General Healey's exercise of her authority to investigate violations of state law.

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[60] Letter from Richard A. Johnston, Chief Legal Counsel, Commonwealth of Massachusetts Office of the Attorney General to Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech. (July 13, 2016), http://www.mass.gov/ago/docs/energy-utilities/exxon/ltr-to-congressman-lamar-smith-7-13-16.pdf.

[61] Press Release, H. Comm. on Science, Space, & Tech., Smith Subpoenas MA, NY Attorneys General (July 13, 2016), https://science.house.gov/news/press-releases/smith-subpoenas-ma-ny-attorneys-general-environmental-groups.

[62] Press Release, H. Comm. on Science, Space, & Tech. Democrats, Statement in Response to the Committee's Issuance of Subpoena (July 13, 2016), http://democrats.science.house.gov/press-release/statement-response-committee%E2%80%99s-issuance-subpoena.

[63] Complaint, *ExxonMobil Corp. v. Healey*, No. 4:16-cv-469, ECF No. 1 (June 15, 2016); Motion for Preliminary Injunction filed by Exxon Mobil Corporation, *ExxonMobil Corp. v. Healey*, No. 4:16-cv-469, ECF No. 8 (June 16, 2016).

[64] Petition of ExxonMobil Corp. to Set Aside or Modify the Civil Investigative Demand or Issue a Protective Order, *In re Civil Investigative Demand No. 2016-EPD-36, Issued by the Office of the Attorney General*, No. 16-1888F (June 16, 2016); Emergency Motion of ExxonMobil Corp. to Set Aside or Modify the Civil Investigative Demand or Issue a Protective Order, *In re Civil Investigative Demand No. 2016-EPD-36, Issued by the Office of the Attorney General*, No. 16-1888F (June 16, 2016).

A. Attorney General Healey Objects to Producing Privileged and Protected Investigatory Documents, Because to Do So Would Compromise the Investigation and the Independence of Her Office.

As discussed further below, the Committee's subpoena is unconstitutional simply because it has no basis in any valid legislative purpose. But the subpoena is particularly egregious for attempting to compel production of documents that are plainly subject to a sovereign state's attorney-client privilege, work product protection, and deliberative process protection. Indeed, most of the Office's documents that would be responsive to the subpoena are covered by these or similar protections under Massachusetts law.

In her third letter in response to the Committee's demands, delivered just prior to issuance of the subpoena, Attorney General Healey advised the Majority that Exxon had filed two lawsuits in an effort to stop the investigation and had not produced any documents in response to the CID. Even if Exxon had produced documents to the Office, or in the future does, the Office is prohibited from making publicly available documents produced by a CID, except in court filings. Mass. Gen. L. c. 93A § 6(6). Consequently, as her letter stated, most of the responsive documents in her possession would be privileged as attorney-client documents or protected as attorney work product.

Moreover, Massachusetts law protects privileged documents in which attorneys within the Office discuss their bases for conducting an investigation into Exxon, as well as work product documents such as Office communications with sources of information about Exxon's business conduct.[65] And since Massachusetts law protects documents covered by the common interest doctrine, the Committee should not be permitted to see communications between the Office and federal investigators or attorneys general from other states, which are protected by a common interest privilege in the context of a potential multi-state investigation.[66]

Compliance with the subpoena would eviscerate Attorney General Healey's ability to conduct an ordinary and lawful investigation, shielded by long-established privileges and protections for its internal communications, work product, and strategic discussions with allied state attorneys general. Attorney General Healey therefore declines to produce the documents.

B. The Committee Has No Constitutional Right to Interfere with a Lawful State Investigation into Possible Violations of Massachusetts Law by Exxon.

The Committee has no right to obtain documents from Attorney General Healey—whether or not protected by recognized privileges—for several important reasons. Attorney General Healey's

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[65] Mass. R. Evid. § 502; Mass. R. Civ. P. 26.

[66] *Hanover Ins. Co. v. Rapo & Jepsen Ins. Servs., Inc.*, 449 Mass. 609, 612, 870 N.E.2d 1105, 1109 (Mass. 2007) ("Broadly stated, the common interest doctrine 'extend[s] the attorney-client privilege to any privileged communication shared with another represented party's counsel in a confidential manner for the purpose of furthering a common legal interest.'"); Restatement (Third) of the Law Governing Lawyers § 76(1) (2000) ("If two or more clients with a common interest in a litigated or nonlitigated matter are represented by separate lawyers and they agree to exchange information concerning the matter, a communication of any such client that otherwise qualifies as privileged . . that relates to the matter is privileged as against third persons. Any such client may invoke the privilege, unless it has been waived by the client who made the communication.").

investigation is an ordinary and lawful investigation under Massachusetts law. The Committee's attempted interference with that investigation is a violation of states' rights and constitutional principles of federalism. The Majority has not cited any rules of either Congress or the Committee itself that support this attempted intrusion into a sovereign state's investigation. None of the court decisions cited by the Majority even discusses Congressional subpoenas to state attorneys general, let alone authorizes them.

1. **Attorney General Healey's investigation arises out of discrepancies in Exxon documents relating to climate change and a concern that Exxon misled Massachusetts investors and consumers with its public representations and omissions about climate change.**

The Committee's subpoena is a deliberate interference with Attorney General Healey's ordinary and lawful investigation of Exxon's possible violation of Massachusetts law. As indicated above, the Office regularly investigates violations of Chapter 93A, which proscribes unfair and deceptive practices toward investors and consumers, among others. Mass. Gen. L. c. 93A. Attorney General Healey is authorized under Chapter 93A to represent the interests of the state and its citizens, as well as to investigate corporate and other wrongdoing, including violations of laws protecting investors and consumers. *See id.* Based on the Office's review of a number of publicly available Exxon documents and public statements by Exxon, Attorney General Healey determined to investigate whether Exxon made false or misleading statements, in violation of Massachusetts law, to investors and consumers regarding the risks of climate change and the effect of those risks on Exxon's products and business.[67]

The recently-published Exxon documents cited above appear to demonstrate that Exxon knew by at least July 1977 from its own scientists that the continued burning of fossil fuels was causing global temperatures to increase, that the impacts could be catastrophic, and that changes in energy strategies would be needed. Nevertheless, it appears that Exxon continued to advise investors that its business model, heavily reliant on continued burning of fossil fuels, was sound, and continued to market its fossil fuel products to consumers without adequately disclosing the climate risks to the public.

The Office is in the preliminary stages of its investigation. Exxon is the first entity or person to receive a CID. Attorney General Healey has made no determinations as to whether the Office will institute litigation against Exxon pursuant to Chapter 93A or other laws. However, given the apparent discrepancies between what Exxon knew from its own internal scientific research about impacts on global warming and what Exxon both affirmatively represented and failed to tell investors and consumers about its research, she is entitled under Massachusetts law to investigate Exxon's conduct. Given that the Office's investigation is in the ordinary course of powers vested in Attorney General Healey by state law, there is no basis whatsoever for the U.S. Congress to interfere in the investigation.

[67] *See* Civil Investigative Demand 2016-DPF-36, *ExxonMobil Corp. v. Healey*, No. 4:16-cv-469, ECF No. 1 (Apr. 19, 2016)

2. Fundamental constitutional principles preclude a Congressional committee from interfering with a state attorney general's lawful investigation.

As far as Attorney General Healey is aware, no committee of Congress in the history of the country has issued a subpoena to a sitting state attorney general with respect to his or her exercise of official duties. We have found no such instance in our research. Nor has the Committee brought any such instance to our attention. Indeed, you as Chairman reportedly stated that "[t]his may be the first time any Congressional committee has subpoenaed state attorneys general."[68]

There is a reason that Congress has refrained: The Constitution precludes such interference. The state of Massachusetts has a sovereign interest in the protection of its residents, including in their capacities as investors and consumers. As the Supreme Court has explained, the "Constitution created a Federal Government of limited powers. 'The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.' U.S. Const., Amdt. 10. The States thus retain substantial sovereign authority under our constitutional system." *Gregory v. Ashcroft*, 501 U.S. 452, 457 (1991). And the States retain significant sovereign powers—"powers with which Congress does not readily interfere." *Id.* at 461. As already made clear to the Committee by the New York Attorney General, "[i]nvestigations and other law enforcement actions by a state Attorney General for potential violations of state law, as here, involve the exercise of police powers reserved to the States under the 10th Amendment," and thus "are not the appropriate subject of federal legislation, oversight, or interference."[69]

Further, while Congress, through committees, has power to investigate in furtherance of its power to legislate, that power may not be used to investigate matters "unrelated to a valid legislative purpose," *Quinn v. United States*, 349 U.S. 155, 161 (1955), and a broad and general authorization from Congress to a committee must, when necessary, be narrowly construed to avoid transgressing constitutional federal-state boundaries, *Tobin v. United States*, 306 F.2d 270, 274-75 (D.C. Cir. 1962). Monitoring or impeding a state attorney general's investigation or prosecution of a state-law enforcement action is not related to a valid federal legislative purpose. *See New York v. United States*, 505 U.S. 144, 162 (1992) (Constitution does not "confer upon Congress the ability to require the States to govern according to Congress' instructions.").

The *Tobin* case well illustrates the limits on a committee's subpoena power. In *Tobin*, the D.C. Circuit reversed a Port of New York Authority official's criminal conviction for contempt of Congress for refusing to comply with a subpoena in a House subcommittee's investigation into whether Congress should "alter, amend or repeal" its consent to the interstate compact between New York and New Jersey that created the Port Authority. 306 F.2d at 272-76. The subpoena sought a broad range of documents concerning the Port Authority's internal affairs, including, among other things, "[a]ll communications in [its] files . . . including correspondence, interoffice and other memoranda and reports relating to" a wide array of topics. *Id.* at 276 n.2. The Port Authority refused to comply with these demands on the two grounds that the request violated the

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[68] Amanda Reilly, *Smith subpoenas AGs, enviro groups in escalating fight*, Energy & Environment Daily, July 14, 2016, http://www.eenews.net/eedaily/2016/07/14/stories/1060040258.

[69] Letter from Leslie B. Dubeck, Counsel, Office of the New York Attorney General to Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech (May 26, 2016) pg. 2

Tenth Amendment, and that the Compact Clause of the U.S. Constitution did not actually permit Congress to "alter, amend or repeal" its consent to a compact. *Id.* at 272. Although the court recognized that the committee had "jurisdiction over 'interstate compacts generally,' and the power 'to conduct full and complete investigations and studies relating to . . . the activities and operations of interstate compacts,'" the court also recognized that "when Congress authorizes a committee to conduct an investigation, the courts have adopted the policy of construing such resolutions of authority narrowly, in order to obviate the necessity of passing on serious constitutional questions." *Id.* at 274-75. And the court found that "the very fact that Congress had never before attempted such an expansive investigation of an interstate compact agency—an investigation, by its very nature, sure to provoke the serious and difficult constitutional questions involved here—leads to the conclusion that if Congress had intended the Judiciary Committee to conduct such a novel investigation it would have spelled out this intention in words more explicit than the[se] general terms[.]" *Id.* at 275. Accordingly, the court concluded that the subpoena fell outside the committee's authority. *Id.* at 276.

Here, the Majority has not identified in its three letters to Attorney General Healey in support of its own "novel" subpoena any explicit Congressional authorization to investigate this Office's enforcement activities. This lacuna is not surprising: Any such purported authorization would violate the fundamental principles of federalism that are manifest in our Constitution as a whole and are safeguarded by the Tenth Amendment. As the New York Attorney General has aptly stated, "Congress does not have jurisdiction to demand documents and communications from a state law enforcement official regarding the exercise of a State's sovereign police powers."[70]

Thus, as Attorney General Healey already has explained to the Majority in her several prior communications on this matter prior to the unlawful issuance of the subpoena, Massachusetts law empowers her office to conduct an investigation into potential unfair and deceptive business practices on the part of Exxon, and the Committee cannot interfere in the investigation without violating the fundamental federal structure of our Constitution. The subpoena constitutes an unauthorized and unconstitutional invasion of the rights of the state of Massachusetts as a sovereign state.

3. The Committee's evolving rationales for its subpoena are untenable.

The Majority's rationales for interfering with Attorney General Healey's investigation have shifted over time both legally and factually, demonstrating the unstable ground on which this unprecedented subpoena rests.[71] The bottom line is that the Majority has never provided a valid

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[70] Letter from Leslie R. Dubeck, Counsel, Office of the New York Attorney General to Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech. (May 26, 2016) pg. 2

[71] In the Committee's first letter, on May 18, the Majority alleged that Attorney General Healey was restricting free speech, colluding with extremist groups, and abusing prosecutorial discretion. Letter from Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech., to Hon. Massachusetts Attorney General Maura Healey, Commonwealth of Massachusetts Office of the Attorney General, May 18, 2016. In their second letter, on June 17, the Majority cited their supposedly "broad investigatory power" and charge to protect scientific research and development as justification for their document requests. Letter from Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech., to Hon. Massachusetts Attorney General Maura Healey, Commonwealth of Massachusetts Office of the Attorney General, June 17, 2016. And their third letter, on July 6, focused on the similarities between the Virgin Islands subpoena and the Massachusetts CID, attempting to use the similar language as evidence of "a deliberate attempt to

legislative purpose for its action. Nor has the Majority cited a single Congressional rule or judicial decision that remotely suggests that the Committee has authority to interfere with an ongoing state investigation or to subpoena the files of a sitting state attorney general.

a. Congressional and Committee Rules do not provide for investigating purely state matters.

Although the Majority's letters have cited several Congressional rules in an effort to justify its request for investigatory files from Attorney General Healey, none of these provisions in fact provides any support for the Majority's effort. Neither the Rules of the House of Representatives[72] ("House Rules"), the Science, Space, and Technology Committee's own rules[73] ("Committee Rules"), nor the Committee's Oversight Plan[74] ("Plan") authorizes the Committee to conduct an investigation of a sovereign state's exercise of its law enforcement authority in connection with the state's consumer and investor protection statute.

House Rule X establishes standing committees, whose jurisdiction concerns matters related to *federal* agencies, application of *federal* law, implementation of *federally*-funded programs, and tax and economic implications of *federal* policies. The standing committees have general oversight responsibilities to assist the House in its evaluation of the application of *federal* laws: "conditions and circumstances" that "may indicate the necessity or desirability of enacting new or additional legislation"; formulation of *federal* law; and whether *federal* programs are being carried out consistent with Congress's intent. *See* House Rule X, Clause 2(a)-(b) (general oversight responsibilities).

Committee Rule VIII (Oversight and Investigations) provides that the Committee "shall review and study . . . the application . . . of *those* laws, . . . the subject matter of which is within its jurisdiction" including "all laws, programs, and Government activities relating to nonmilitary research and development" in accordance with House Rule X, and must prepare a plan of its oversight activities. *See* Committee Rule VIII (emphasis supplied); *see also* Plan at 1. In light of the capitalized term "Government" and in light of House Rule X, the term "those laws" in Committee Rule VIII refers to *federal* laws.

Similarly, the Plan prepared by the Committee focuses on oversight of *federal* agencies, with a key goal of eliminating "waste, fraud, and abuse." No provision of the Plan discusses a need or plan to investigate any state activities, and no such investigation would aid the Committee in fulfilling its charge pursuant to House Rule X. While the Plan suggests that the Committee will engage in

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mask the true purpose of [the Office's] investigation. Letter from Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech., to Hon. Massachusetts Attorney General Maura Healey, Commonwealth of Massachusetts Office of the Attorney General, July 6, 2016

[72] Rules of the House of Representatives, 114th Cong. (Jan. 6, 2015), http://clerk.house.gov/legislative/house-rules.pdf.

[73] Rules of the Science, Space, and Technology Committee, 114th Cong., https://science.house.gov/sites/republicans.science.house.gov/files/documents/hearings/Committee%20on%20Science%2C%20Space%2C%20and%20Technology%20Rules%20114th%20Congress%20v2_0.pdf.

[74] Science, Space, and Technology Committee Oversight Plan for 114th Congress, https://science.house.gov/sites/republicans.science.house.gov/files/documents/SST%20Oversight%20Plan%20for%20the%20114th%20Congress.pdf.

oversight efforts in connection with "scientific integrity," it is limited to oversight of *federal* agencies. *See, e.g.*, Plan at 9 (the Committee will continue to "collect and examine allegations of intimidation of science specialists in *federal agencies*, suppression or revisions of scientific findings, and mischaracterizations of scientific findings because of political or other pressures" (emphasis supplied)); *see also id.* (The Committee will develop and implement "scientific integrity principles within the *Executive Branch*." (emphasis supplied)). Read in the context of the overall Plan, it is obvious the Committee's focus is on and limited to scientific findings made or funded by federal government agencies, not by private corporations, such as Exxon.

The Committee therefore was not delegated "any oversight authority concerning the investigations of state attorneys general regarding violations of state securities, consumer, or business laws"[75] by Congress. The Ranking Member of the Committee has also recognized this lack of authority, stating that "nowhere in our jurisdiction—legislative or oversight—can one find justification for our Committee's oversight of state police powers."[76]

b. No judicial decision has sanctioned Congressional subpoenas of state attorneys general.

In addition to the lack of authority under Congressional rules, none of the judicial decisions cited in the Majority's second and third letters to Attorney General Healey (there were no decisions cited in the first such letter) suggests that the Committee may interfere with her statutory power to investigate possible violations of Massachusetts law by Exxon.

The June 17 Letter referenced several decisions in footnotes, none of which involved a Congressional investigation into enforcement activities of a state attorney general. *McGrain v. Daughtery* involved a subpoena to a private individual, 273 U.S. 135 (1927), and *Eastland v. U.S. Servicemen's Fund* involved a subpoena to a bank, 421 U.S. 491 (1975). *Barenblatt v. United States* and *Shelton v. United States* concerned subpoenas issued by the infamous House Committee on Un-American Activities to a university professor and a Klan member, respectively. 360 U.S. 109 (1959); 404 F.2d 1292 (D.C. Cir. 1968). Finally, *Hutcheson v. United States* concerned a subpoena issued to a union officer, 369 U.S 599 (1962).

The July 6 Letter is similarly devoid of any court decisions supporting interference by a Congressional committee with a state attorney general's enforcements activities. *In the Matter of the Special April 1977 Grand Jury* concerned a *federal grand jury* subpoena issued to a state attorney general concerning potential criminal law violations by him personally, and specifically did not involve an investigation "into the affairs of the State of Illinois" or the attorney general's actions in his official capacity. 581 F.2d 589, 592 (7th Cir. 1978). *Freilich* concerned a claim that a federal *statutory* reporting requirement compelled states to implement a federal regulatory program and therefore amounted to unconstitutional "commandeering" under *Hodel v. Virginia Surface Mining & Reclamation Ass'n*, 452 U.S. 264 (1981). *Frelich v. Bd. of Directors of Upper Chesapeake Health, Inc.*, 142 F.Supp. 2d 679, 696 (D. Md. 2001). *Michigan Department of Community Health*

[75] Letter from Leslie B. Dubeck, Counsel, Office of the New York Attorney General to Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech. (May 26, 2016) pg. 2.
[76] Letter from Hon. Eddie Bernice Johnson, Ranking Member, H. Comm. on Science, Space, & Tech., to Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech. (June 23, 2016) pg. 7.

involved a federal *administrative* subpoena issued by the Drug Enforcement Administration to a state agency, where there was a clear nexus between the federal investigation and enforcement of a federal law. *See United States v. Michigan Dep't of Cmty. Health*, No. 1:10-MC-109, 2011 WL 2412602 (W.D. Mich. June 9, 2011). Even there, the court denied the DEA's petition to enforce its subpoena with respect to certain records in the state agency's possession. *Id.* at *14.

Put simply, none of the cases which the Committee has cited in any of its letters to Attorney General Healey provides that a Congressional committee can force a state Attorney General to disclose to the committee the substance or results of an official investigation into possible violations of state law by a private company.

c. *Attorney General Healey is not infringing on Exxon's rights of free speech, because the First Amendment does not protect false and misleading statements.*

The Majority's letters to Attorney General Healey and the Chairman's comments at a press conference announcing the subpoena suggest that the Majority is concerned that this Office's investigation threatens free speech rights. That concern is misplaced.

As the Chairman and members of this Committee know, the First Amendment does not protect false and misleading statements in the marketplace. *See, e.g., United States v. Philip Morris USA, Inc.*, 566 F.3d 1095, 1123 (D.C. Cir. 2009) ("[I]t is well settled that the First Amendment does not protect fraud."); *McIntyre v. Ohio Elections Comm'n*, 514 U.S. 334, 357(1995) ("[The government] may, and does, punish fraud directly."); *In re R. M. J.*, 455 U.S. 191, 203 (1982) ("[W]hen the particular content or method of the advertising suggests that it is inherently misleading or when experience has proved that in fact such advertising is subject to abuse, the States may impose appropriate restrictions. Misleading advertising may be prohibited entirely."); *Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n of New York*, 447 U.S. 557, 593 (1980) ("[F]alse and misleading commercial speech is not entitled to any First Amendment protection."); *Friedman v. Rogers*, 440 U.S. 1, 9 (1979) ("[R]estrictions on false, deceptive, and misleading commercial speech" are "permissible."); *Giboney v. Empire Storage & Ice Co.*,336 U.S. 490, 502 (1949) ("[I]t has never been deemed an abridgment of freedom of speech or press to make a course of conduct illegal merely because the conduct was in part initiated, evidenced, or carried out by means of language, either spoken, written, or printed."); *Massachusetts Ass'n of Private Career Sch. v. Healey*, No. CV 14-13706-FDS, 2016 WL 308776 at *18 (D. Mass. Jan. 25, 2016) ("[T]he government may place an outright ban on speech that is misleading on its face—that is, speech that is more likely to deceive the public than to inform it.").

Just as the courts rejected claims by the tobacco industry that the First Amendment protected its knowingly false statements that cigarette smoking did not cause lung cancer, Exxon may not use the First Amendment to shield its statements and non-disclosures with respect to the relationship between fossil fuel use and climate change. Businesses are not permitted to make false statements to the public and then claim that the First Amendment protects them from the consequences of state laws prohibiting false statements in business affairs. As the Oregon Attorney General's Office wrote to you:

> Your letter also incorrectly accuses this office of investigating entities based on their speech or beliefs concerning climate change. Please be advised this office will not be dissuaded from considering whether state laws, including consumer protections laws, may provide redress against knowingly false commercial speech concerning global warming. The First Amendment simply does not protect fraudulent speech. *Illinois v. Telemarketing Associates, Inc.*, 538 U.S. 600, 612 (2003); *Donaldson v. Read Magazine, Inc.*, 333 U.S. 178, 190 (1948) ("This government power [to protect people against fraud] has always been recognized in this country and is firmly established.") [77]

Because Exxon appears to have made many statements to the public, including investors and consumers, about the impact of fossil fuels on climate change that appear to contradict its own internal documents, Attorney General Healey is entitled to investigate what Exxon knew and said to others about these issues—in order to determine whether a cause of action exists for violation of Massachusetts law. Attorney General Healey is not seeking to stifle Exxon's scientific research; to the contrary, the Office is looking into whether Exxon properly represented to the public, in accordance with Massachusetts law, what it knew first-hand from its detailed internal scientific research.

Furthermore, because the Office has not sent CIDs to any entities or individuals other than Exxon, the Majority's professed concern about chilling third-party research is also misplaced. To the extent that the Office's CID to Exxon seeks communications between Exxon and other entities or individuals about climate change, those documents are relevant to a determination whether Exxon was telling the public, including investors and consumers, a different story about climate change than it was discussing internally and privately with select third parties. If so, the outside communications would be relevant to potential claims that Exxon violated Chapter 93A by misleading investors and consumers.

4. If the Committee's action goes unchallenged, it could jeopardize states' rights and, in particular, the independence of state attorneys general to conduct investigations into violations of state law.

A substantial portion of Attorney General Healey's work is to conduct investigations into various types of illegal behavior, including unfair and deceptive business practices. As stated above, the Office has issued several hundred CIDs under Chapter 93A since 2013. Some of those investigations result in settlements or assurances of discontinuance, some result in civil enforcement actions or other litigation, and some are closed for lack of sufficient evidence of wrongdoing. Attorney General Healey, like most other state attorneys general, also participates regularly in multi-state investigations in which attorneys general collaborate on strategy, discovery, and sometimes litigation. If the Committee is permitted to obtain the privileged and otherwise protected investigatory files of the Office as well as other offices of state attorneys general, the longstanding independence of states to enforce state laws against businesses will be compromised. The states'

[77] Letter from Hon. Eddie Bernice Johnson, Ranking Member, H. Comm. on Science, Space, & Tech. to Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech. (June 23, 2016) pg. 3-4 (quoting Letter from Frederick M. Boss, Deputy Attorney General, Ore. Dep't of Justice to Hon. Lamar Smith, Chairman, H. Comm. on Science, Space, & Tech. (June 1, 2016) pg. 2).

prerogative to conduct their own investigations into violations of state law is a bedrock of states' rights.

As stated above, there has been an unbroken recognition for over 200 years that states are empowered to investigate wrongdoing against their residents, without interference by the federal government and in particular Congress. As a result, state attorneys general succeed in obtaining favorable results for their residents every day of the year, in matters ranging from fraudulent unfair and deceptive mortgage lending practices on the part of large national banks and others, to Volkswagen's fraudulent schemes with respect to environmental emissions systems. The Committee's subpoena threatens this entire fabric of independent state investigations.

Exxon has already seized for itself two different opportunities to present legal arguments to two separate courts as to why this Office's investigation should not proceed. As described above, Exxon has filed lawsuits in both federal court in Texas and state court in Massachusetts in an effort to stop Attorney General Healey's investigation. Under existing court discovery rules, Exxon would not be entitled in the course of those lawsuits to obtain most of the attorney-client, work product, and deliberative documents that the Committee has subpoenaed. Yet the Committee apparently seeks to provide Exxon with yet another, third venue to challenge the investigation and to obtain materials to which Exxon has no right.

There is simply no legitimate legislative or constitutional basis for the Committee to meddle in a state investigation of state-law violations. Attorney General Healey will not yield to this blatant attempt to chill her investigation into Exxon's conduct.

CONCLUSION

For these reasons, including those contained in the attached letters to the Majority, Attorney General Healey objects to the subpoena and respectfully declines to produce any documents. Attorney General Healey submits that the Majority should withdraw the subpoena and cease its interference with a lawful Massachusetts state investigation. In the event the Majority seeks to pursue the subpoena notwithstanding these objections, Attorney General Healey submits that the subpoena and the objections should be referred to the entire Committee for its review.

Respectfully,

Richard A. Johnston
Chief Legal Counsel

cc: Honorable Eddie Bernice Johnson, Ranking Member, House Committee on Science, Space, and Technology

Honorable Katherine Clark, Member, House Committee on Science, Space, and Technology

Enclosure

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June 2, 2016

The Honorable Lamar Smith
Chairman
House Committee on Science, Space, and Technology
2321 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Smith:

I write in response to the May 18, 2016, letter ("Letter") signed by you and several other members of the House Committee on Science, Space, and Technology ("Committee") seeking certain documents and information in connection with ongoing law enforcement and investigative activities of the Massachusetts Attorney General's Office ("MA AGO") regarding potential violations of Massachusetts's consumer protection and securities laws by ExxonMobil Corporation ("Exxon").

At the outset, the Committee's characterization of MA AGO's investigative activities is inaccurate. The Committee's assertion that the MA AGO is engaged in a "coordinated attempt to deprive companies, nonprofit organizations, and scientists of their First Amendment rights and ability to fund and conduct scientific research free from intimidation and threats of prosecution," is absolutely incorrect, and the Committee's intimation that the MA AGO's actions "may even amount to an abuse of prosecutorial discretion" is without basis.

The MA AGO is authorized under Massachusetts law to represent the interests of the Commonwealth and its citizens, as well as to investigate corporate and other wrongdoing, including violations of laws protecting investors and consumers. Based on MA AGO's review of a number of publicly available Exxon documents and public statements by Exxon, MA AGO determined to investigate whether Exxon made false or misleading statements, in violation of Massachusetts law, to investors and consumers regarding the risks of climate change and the effect of those risks on Exxon's business.

Publicly available Exxon documents establish that at least by July 1977, Exxon's own scientists informed Exxon management that the release of carbon dioxide from burning fossil fuels was causing global temperatures to increase, a situation that would, the scientists warned Exxon

management, give rise to "the need for hard decisions regarding changes in energy strategies."[1] Publicly available Exxon documents also confirm that Exxon's scientists were, in the early 1980s, predicting significant increases in global temperature as a result of the combustion of fossil fuels, and that a 2 to 3 degree Celsius increase could lead to melting of polar ice, rising sea levels and "redistribution of rainfall," "accelerated growth of pests and weeds," "detrimental health effects," and "population migration."[2] Exxon's scientists counseled Exxon management that it would be possible to "avoid the problem by sharply curtailing the use of fossil fuels."[3] One Exxon scientist warned in no uncertain terms that it was "distinctly possible" that the effects of climate change over time will "indeed be catastrophic (at least for a substantial fraction of the earth's population)."[4] Despite Exxon's early understanding of the science of climate change and the threats posed by climate change to human populations and global ecosystems, other publically available documents suggest that Exxon may have participated in later self-interested efforts to mislead the public, including investors and consumers, with respect to the impacts of climate change in order to defeat governmental policy measures designed to address the threat of climate change.[5]

Exxon's shareholders are taking very seriously concerns about the nature and extent of Exxon's disclosures regarding the impacts of climate change on Exxon's business; just last week, on May 25, Exxon shareholders came close to passing resolutions that would have required Exxon to implement "stress tests" to ascertain more specifically the climate-driven risks to Exxon's business.[6] As The Wall Street Journal reported, the proposals "drew more support than any contested climate-related votes" in Exxon's history, and indicate that "more mainstream shareholders like pension funds, sovereign wealth funds, and asset managers are starting to take more seriously" the effects on Exxon of a "global weaning from fossil fuels."[7]

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[1] Shannon Hall, *Exxon Knew About Climate Change Almost 40 Years Ago: A new investigation shows the oil company understood the science before it became a public issue and spent millions to promote misinformation*, Scientific American, Oct. 26, 2015, *available at* http://www.scientificamerican.com/article/exxon-knew-about-climate-change-almost-40-years-ago/

[2] Henry Shaw, *CO_2 Greenhouse and Climate Issues* (March 28, 1984), *available at* http://insideclimatenews.org/sites/default/files/documents/Shaw%20Climate%20Presentation%20%281984%29.pdf

[3] *Id.*

[4] Roger W. Cohen, Interoffice Memorandum to W. Glass (Aug. 18, 1981), *available at* http://insideclimatenews.org/sites/default/files/documents/%2522Catastrophic%2522%20Effects%20Letter%20%281981%29.pdf

[5] *See, e.g.*, Draft Global Climate Science Communications Action Plan (est. 1998), available at http://insideclimatenews.org/sites/default/files/documents/Global%20Climate%20Science%20Communications%20Plan%20%281998%29.pdf (noting "[v]ictory will be achieved when . . . those promoting the Kyoto treaty on the basis of extant science appear to be out of touch with reality," and "[u]nless 'climate change' becomes a non-issue, meaning that the Kyoto proposal is defeated and there are no further initiatives to thwart the threat of climate change, there may be no moment when we can declare victory for our efforts.").

[6] Bradley Olson & Nicole Friedman, *Exxon, Chevron Shareholders Narrowly Reject Climate-Change Stress Tests*, The Wall Street Journal, May 25, 2016, *available at* http://www.wsj.com/articles/exxon-chevron-shareholders-narrowly-reject-climate-change-stress-tests-1464206192

[7] *Id*

As the Chairman and members of this Committee know, the First Amendment does not protect false and misleading statements in the marketplace. *See, e.g., United States v. Philip Morris USA, Inc.*, 566 F.3d 1095, 1123-24 (D.C. Cir. 2009). Because Exxon appears to have made many statements to investors and consumers about the impact of fossil fuels on climate change which appear to contradict its own internal documents, the MA AGO is entitled to investigate what Exxon knew and said to others about these issues.

The Commonwealth has a sovereign interest in the protection of its investors and consumers. As the U.S. Supreme Court has explained, the "Constitution created a Federal Government of limited powers. 'The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.' U.S. Const., Amdt. 10. The States thus retain substantial sovereign authority under our constitutional system." *Gregory v. Ashcroft*, 111 S. Ct. 2395, 2399 (1991). States, therefore, retain significant sovereign powers—"powers with which Congress does not readily interfere." *Id.* at 2401.

Further, while Congress, through committees, has power to investigate in furtherance of its power to legislate, that power is limited: Congress's power may not be used to investigate matters "unrelated to a valid legislative purpose," *Quinn v. U.S.*, 75 S. Ct. 668, 672 (1955), and must be narrowly tailored to avoid transgressing constitutional federal-state boundaries. *Tobin v. U.S.*, 306 F.2d 270, 275 (D.C. Cir. 1962), *cert denied*, 371 U.S. 902 (1962). An investigation by a state attorney general, and any related prosecution of a state law enforcement action, is not related to a valid federal legislative purpose. *See New York v. U.S.* 505 U.S. 144, 162 (1992) (Constitution does not "confer upon Congress the ability to require the States to govern according to Congress' instructions"). The Committee does not identify in its Letter any congressional authorization to undertake an investigation into the enforcement activities of this Office, and any such purported authorization would violate long-standing principles of federalism.

Moreover, most of the materials that the Committee has requested from the MA AGO, which include investigatory and deliberative process materials, attorney work product, and attorney-client and/or common interest privileged materials, would be protected from disclosure under established state and federal law.

For all of these reasons, the MA AGO respectfully declines to provide the requested materials.

Sincerely,

Richard A. Johnston
Chief Legal Counsel

THE COMMONWEALTH OF MASSACHUSETTS
OFFICE OF THE ATTORNEY GENERAL
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MAURA HEALEY
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June 24, 2016

The Honorable Lamar Smith
Chairman
House Committee on Science, Space, and Technology
2321 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Smith:

We have reviewed your letter of June 17, 2016, also signed by certain other members of the Committee. Your letter does not lead us to alter our conclusion that the Committee lacks authority to interfere with an investigation by the Massachusetts Attorney General's Office into possible violations of Massachusetts law by ExxonMobil Corporation, as set out in detail in our letter of June 2, 2016. Consequently, as indicated in our prior letter, we will not be providing the Committee with the documents requested in your letters to our office.

Sincerely,

Richard A. Johnston
Chief Legal Counsel

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July 13, 2016

The Honorable Lamar Smith
Chairman
House Committee on Science, Space, and Technology
2321 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Smith:

I write in response to your July 6, 2016, letter ("July Letter"), which, like your letters of May 18 and June 17, seeks documents and information in connection with ongoing law enforcement and investigative activities of the Massachusetts Attorney General's Office ("MA AGO") regarding potential violations of Massachusetts law by ExxonMobil Corporation ("Exxon"). This letter supplements our responsive letters to you of June 2 and 24, principally to address new arguments raised in your July Letter.

As you know from our letter of June 2, the focus of MA AGO's investigation is to determine whether Exxon, in violation of Massachusetts law, misled consumers and/or investors by taking public positions regarding the impact of fossil fuel combustion on climate change and Exxon's business that contradict Exxon's own knowledge and understanding, including as documented by Exxon's own scientific research. For example, in 1981, Exxon understood that "[a]tmospheric CO_2 will double in 100 years if fossil fuels grow at 1.4%/a," and that such a doubling of CO_2 would result in a "3 [degree Celsius] global average temperature rise and 10 [degree Celsius] at poles" which would cause "major shifts in rainfall/agriculture" and melting of polar ice.[1] Despite Exxon's knowledge, and its recognition that there may need to be "an orderly transition to non-fossil fuel technologies,"[2] by 1998, Exxon's Randy Randol was nonetheless participating as a member of the "Global Climate Science Communications Team" that was engaged in a concerted effort to challenge the "scientific underpinning of the global climate change theory" in the media, and taking the position that "[i]n fact, it [sic] not known for sure

[1] Preliminary Statement on Exxon's Position on The Growth of Atmospheric Carbon Dioxide, from Henry Shaw to Dr. E. E. David, Jr., (May 15, 1981), *available at* https://insideclimatenews.org/sites/default/files/documents/Exxon%20Position%20on%20CO2%20%281981%29.pdf.
[2] *Id.*

whether (a) climate change actually is occurring, or (b) if it is, whether humans really have any influence on it."[3]

MA AGO is entitled to investigate what Exxon knew and communicated to others about these issues, since those facts are highly relevant to our prospective determination of whether Exxon violated Massachusetts law and misled consumers and/or investors. It appears, from documents such as the above-cited Draft Global Climate Science Communications Plan, that Exxon may have communicated with many entities to misrepresent facts about the impacts of climate change and climate-driven risks to its business; the fact that some of those entities may have conducted research or employed scientists does not diminish the relevance of Exxon's communications to them, nor give this Committee authority to probe into or interfere with MA AGO's investigation of potential violations by Exxon of Massachusetts law.

Neither the Rules of the House of Representatives[4] ("House Rules"), the Science, Space and Technology Committee's own rules[5] ("Committee Rules"), nor the Committee's Oversight Plan[6] ("Plan") authorize the Committee to conduct an investigation of a sovereign state's exercise of its law enforcement authority in connection with the state's consumer and investor protection statute. House Rule X establishes standing committees. Standing committee jurisdiction concerns matters related to federal agencies, application of federal law, implementation of federally-funded programs, and tax and economic implications of federal policies. The standing committees have general oversight responsibilities to assist the House in its evaluation of the application of federal laws; "conditions and circumstances" that "may indicate the necessity or desirability of enacting new or additional legislation"; formulation of federal law; and whether federal programs are being carried out consistent with Congress's intent. *See* House Rule X, Clause 2(a)-(b) (general oversight responsibilities).

Committee Rule VIII (Oversight and Investigations) provides that the Committee "shall review and study . . . the application . . . of those laws, . . . the subject matter of which is within its jurisdiction" including "all laws, programs, and Government activities relating to nonmilitary research and development" in accordance with House Rule X, and must prepare a plan of its oversight activities. *See* Committee Rule VIII (emphasis supplied); *see also* Plan at 1. In light of the capitalized term "Government" and in light of House Rule X, the term "those laws" in Committee Rule VIII refers to federal laws.

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[3] *See, e.g.*, Draft Global Climate Science Communications Action Plan (Apr. 3, 1998), *available at* http://insideclimatenews.org/sites/default/files/documents/Global%20Climate%20Science%20Communications%20Plan%20%281998%29.pdf. There are other publicly-available documents which further demonstrate this historical contradiction in positions taken by Exxon internally and externally. *See e.g.*, MA AGO Civil Investigative Demand 2016-EPD-36, issued Apr. 19, 2016, available at http://www.mass.gov/ago/docs/energy-utilities/exxon/ma-exxon-cid-.pdf

[4] Rules of the House of Representatives, 114th Cong (Jan. 6, 2015), *available at* http://clerk.house.gov/legislative/house-rules.pdf

[5] Rules of the Science, Space, and Technology Committee, 114th Cong., *available at* https://science.house.gov/sites/republicans.science.house.gov/files/documents/hearings/Committee%20on%20Science%2C%20Space%2C%20and%20Technology%20Rules%20114th%20Congress%20v2_0.pdf

[6] Science, Space, and Technology Committee Oversight Plan for 114th Congress, *available at* https://science.house.gov/sites/republicans.science.house.gov/files/documents/SST%20Oversight%20Plan%20for%20the%20114th%20Congress.pdf

Similarly, the Plan prepared by the Committee focuses on oversight of federal agencies, with a key goal of eliminating "waste, fraud, and abuse." No provision of the Plan discusses a need or plan to investigate any state activities, and no such investigation would aid the Committee in fulfilling its charge pursuant to House Rule X. While the Plan suggests that the Committee will engage in oversight efforts in connection with "scientific integrity," it is limited to oversight of federal agencies. *See, e.g.*, Plan at 9 (the Committee will continue to "collect and examine allegations of intimidation of science specialists in federal agencies, suppression or revisions of scientific findings, and mischaracterizations of scientific findings because of political or other pressures") and id., (the Committee will develop and implement "scientific integrity principles within the Executive Branch.") Read in the context of the overall Plan, it is obvious the Committee's focus is on and limited to scientific findings made or funded by federal government agencies, not by private corporations, such as Exxon.

As we previously conveyed in our letter of June 2, Congress's power may not be used to investigate matters "unrelated to a valid legislative purpose." *Quinn v. U.S.*, 75 S. Ct. 668, 672 (1955). The MA AGO investigation is unrelated to a valid federal legislative purpose. *See New York v. U.S.* 505 U.S. 144, 162 (1992) (Constitution does not "confer upon Congress the ability to require the States to govern according to Congress' instructions") and therefore, may not be the subject of the exercise of Congress's power.

None of the cases cited in your July Letter suggests a different result with respect to MA AGO's right under Massachusetts law to investigate possible violations of a state statute protecting consumers and investors without Congressional interference. *In the Matter of the Special April 1977 Grand Jury* concerned a federal grand jury subpoena issued to a state attorney general concerning potential criminal law violations by him personally, and specifically did not involve an investigation "into the affairs of the State of Illinois." 581 F.2d 589, 592 (7th Cir. 1978). *Freilich* concerned a claim that a federal statutory reporting requirement compelled states to implement a federal regulatory program and therefore amounted to unconstitutional "commandeering" under *Hodel v. Virginia Surface Mining & Reclamation Association,* 452 U.S. 264 (1981). *See Frelilich v. Bd. of Directors of Upper Chesapeake Health, Inc.*, 142 F.Supp. 2d 679, 696-97 (D. Md. 2001) (citing *Hodel*, at 288). *Michigan Department. of Community Health* involved a federal administrative subpoena issued by the Drug Enforcement Administration to a state agency where there was a clear nexus between the federal investigation and enforcement of a federal law. *See U.S. v. Mich. Dep't of Cmty. Health,* No. 1:10-mc-109, 2011 U.S. Dist. LEXIS 59445 (W.D. Mich. June 3, 2011). Even there, the court denied the DEA's petition to enforce its subpoena with respect to certain records in the state agency's possession. *Id.* at *41. Put simply, none of the cases which you have cited provides that a Congressional committee can force a state Attorney General to disclose the substance or results of an official investigation into possible violations of state law by a private company.

We note that on June 23, 2016, Ranking Committee Member Eddie Bernice Johnson wrote you that your requests for information about state AGO investigations into Exxon "are an illegitimate exercise of Congressional oversight power," and she provided a detailed legal explanation as to why. In addition to the arguments which we have made and the authorities which we have cited in our responsive letters to you as grounds for our declination to provide documents about our investigation, we refer you again to Rep. Johnson's letter attached hereto.

Furthermore, as you know, Exxon has challenged, in Massachusetts state court and Texas federal district court, the civil investigative demand MA AGO served upon the company, and Exxon has not yet produced any documents to MA AGO. Thus the vast majority of existing documents sought by the Committee and in MA AGO's possession constitutes core attorney work product, attorney-client communications, deliberative process documents and other privileged materials that are protected from disclosure.

In response to your various letters, MA AGO continues respectfully to decline to provide the requested materials to the Committee. As we indicated in a call with your staff today, we are willing to confer by telephone with you or your staff, provided that Representative Eddie Bernice Johnson, Ranking Member of the Committee, and/or her staff, are invited and permitted to participate in any discussions between our offices.

Sincerely,

Richard A. Johnston
Chief Legal Counsel

Cc: Honorable Eddie Bernice Johnson, Ranking Member, Science, Space and Technology Committee

LAMAR S. SMITH, Texas
CHAIRMAN

EDDIE BERNICE JOHNSON, Texas
RANKING MEMBER

Congress of the United States
House of Representatives

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
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June 23, 2016

The Honorable Lamar Smith
Chairman
Committee on Science, Space, and Technology
2321 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Smith,

On May 18, 2016, you wrote to 17 state and territorial attorneys general and 8 non-governmental organizations (NGOs) demanding documents related to possible investigations into fossil fuel industry fraud regarding climate change.[1] On June 17, 2016, after receiving what were presumably unsatisfactory responses from these attorneys general and NGOs, you sent a second round of demands to these same groups. These demands are an illegitimate exercise of Congressional oversight power, and I urge you to immediately cease this abuse of authority.

In a Congress in which the Committee on Science, Space, and Technology's oversight powers have been repeatedly abused, this latest action stands apart. In addition to mischaracterizing innumerable facts, laws, and legal precedents surrounding this situation, the May 18 and June 17 letters have now led the Committee on Science, Space, and Technology to the precipice of a Constitutional crisis. Never in the history of this formerly esteemed Committee has oversight been carried out with such open disregard for truth, fairness, and the rule of law.

The state and territorial attorneys general, representatives for the targeted NGOs, and 43 Democratic Members of Congress[2] have already written to you to patiently explain the

[1] Attorneys General from: California, Connecticut, District of Columbia, Iowa, Illinois, Massachusetts, Maryland, Maine, Minnesota, New Mexico, New York, Oregon, Rhode Island, U.S. Virgin Islands, Virginia, Vermont, Washington. NGOs: 350.org, Climate Accountability Institute, The Climate Reality Project, Greenpeace, Pawa Law Group, P.C., The Rockefeller Brothers Fund, Rockefeller Family Fund, Union of Concerned Scientists. All Committee letters and responses are available at: http://democrats.science.house.gov/letter/document-requests-sent-state-attorneys-general-and-environmental-groups

[2] Letter from Hon. Donald S. Beyer Jr. to Hon. Lamar Smith, Chairman, H. Comm. On Science, Space, & Tech. (June 2, 2016); Letter from Hon. Paul D. Tonko to Hon. Lamar Smith, Chairman, H. Comm. On

illegitimacy of your "investigation." Since you have apparently rejected their responses, I will endeavor to highlight once more the factual and legal shortcomings of your demand letters.

The Majority's Letters Mischaracterize State Attorney General Actions

Both your May 18 and June 17 letters refer to a "coordinated attempt to attack First Amendment rights of American citizens and their ability to fund and conduct scientific research free from intimidation and threats of prosecution..."[3] In laying out your factual case, you state:

> This sequence of events – from the 2012 workshop to develop strategies to enlist the help of attorneys general to secure documents, to the 2016 subpoenas issued by you and other members of the Green 20 – raises serious questions about the impartiality and independence of current investigations by the attorneys general. Your office – funded with taxpayer dollars – is using legal actions and investigative tactics taken in close coordination with certain special interest groups and trial attorneys may rise to the level of an abuse of prosecutorial discretion. Further, such actions call into question the integrity of your office.[4]

Ignoring for a moment the grossly inappropriate and unsubstantiated innuendo contained in these statements, I would like to highlight the factual deficiencies in your claims.

First of all, it is important to accurately report on the actions of the state and territorial attorneys general. As the New York Attorney General's Office noted in their response to your May 18 letter, they are investigating "whether ExxonMobil Corporation violated New York's securities, business and consumer fraud laws by making false or misleading statements to investors and consumers relating to climate change driven risks and their impact on Exxon's business."[5] In other words, these state attorneys general are investigating potential fraud under state law.

The Commonwealth of Massachusetts Office of the Attorney General laid out the factual basis for these fraud investigations in some detail in its June 2, 2016, response letter, stating:

> Publicly available Exxon documents establish that at least by July 1977, Exxon's own scientists informed Exxon management that the release of carbon dioxide from burning fossil fuels was causing global temperatures to increase, a situation that would, the scientists warned Exxon management, give rise to "the need for hard decisions regarding changes in energy strategies." Publicly available Exxon

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Science, Space, & Tech. (June 10, 2016); Letter from Hon. Ted W. Lieu to Hon. Lamar Smith, Chairman, H. Comm. On Science, Space, & Tech. (June 9, 2016).

[3] Letter from Hon. Lamar Smith, Chairman, H. Comm. On Science, Space, & Tech. to Hon. Eric Schneiderman, Attorney General, May 18, 2016, pg. 4.

[4] *Id.*

[5] Letter from Leslie B. Dubeck, Counsel, Office of the New York Attorney General to Hon. Lamar Smith, Chairman, H. Comm. On Science, Space, & Tech., May 26, 2016, pg. 1.

> documents also confirm that Exxon's scientists were, in the early 1980s, predicting significant increases in global temperature as a result of the combustion of fossil fuels, and that a 2 to 3 degree Celsius increase could lead to melting of polar ice, rising sea levels and "redistribution of rainfall," "accelerated growth of pests and weeds," "detrimental health effects," and "population migration." Exxon's scientists counseled Exxon management that it would be possible to "avoid the problem by sharply curtailing the use of fossil fuels." One Exxon scientist warned in no uncertain terms that it was "distinctly possible" that the effects of climate change over time will "indeed be catastrophic (at least for a substantial fraction of the earth's population)." Despite Exxon's early understanding of the science of climate change and the threats posed by climate change to human populations and global ecosystems, other publically available documents suggest that Exxon may have participated in later self-interested efforts to mislead the public, including investors and consumers, with respect to the impacts of climate change in order to defeat governmental policy measures designed to address the threat of climate change.[6]

These accusations were widely reported in the press in 2015.[7] Moreover, these accusations should have come as no surprise to you or your staff as they formed the same factual basis that compelled 20 scientists to write to the U.S. Attorney General to suggest that Racketeer Influenced and Corrupt Organizations Act (RICO) investigations might be warranted against fossil fuels companies that potentially knowingly defrauded the American public. You previously instigated an investigation against one of those scientists for exercising his constitutionally protected First Amendment right to petition the government.[8] This is the first of many instances where the irony of your current accusations becomes evident.

Multiple state attorneys general also pointed out the legal fallacy of your accusations of First Amendment violations. For instance, the Oregon Attorney General's Office pointed out that:

> [y]our letter also incorrectly accuses this office of investigating entities based on their speech or beliefs concerning climate change. Please be advised this office

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[6] Letter from Richard A. Johnston, Chief Legal Counsel, Commonwealth of Massachusetts Office of the Attorney General letter to Hon. Lamar Smith, Chairman, H. Comm. On Science, Space, & Tech., June 2, 2016, pgs. 1-2 (citations omitted).

[7] *See, e.g.*, Shannon Hall, *Exxon Knew About Climate Change Almost 40 Years Ago: A new investigation shows the oil company understood the science before it became a public issue and spent millions to promote misinformation*, Scientific American, Oct. 26, 2015, available at http://www.scientificamerican.com/article/exxon-knew-about-climate-change-almost-40-years-ago/ And, Neela Banerjee, Lisa Song, and David Hasemyer, *Exxon's Own Research Confirmed Fossil Fuels' Role in Global Warming Decades Ago*, Inside Climate News, Sep. 16, 2015, available at http://insideclimatenews.org/news/15092015/Exxons-own-research-confirmed-fossil-fuels-role-in-global-warming

[8] Press Release, H. Comm. On Science, Space, and Tech., "Smith: Taxpayer-Funded Climate Org Allegedly Seeks Criminal Penalties for Skeptics," Oct. 1, 2015, available at https://science.house.gov/news/press-releases/smith-taxpayer-funded-climate-org-allegedly-seeks-criminal-penalties-skeptics

> will not be dissuaded from considering whether state laws, including consumer protections laws, may provide redress against knowingly false commercial speech concerning global warming. The First Amendment simply does not protect fraudulent speech. *Illinois v. Telemarketing Associates, Inc.*, 538 U.S. 600, 612 (2003); *Donaldson v. Read Magazine, Inc.*, 333 U.S. 178, 190 (1948) ("This government power [to protect people against fraud] has always been recognized in this country and is firmly established.").[9]

The notion that fraudulent speech is not protected by the U.S. Constitution would seem to be beyond dispute. Nonetheless, despite the state attorneys generals pointing very specifically to the factual and legal deficiencies of your accusations, your June 17, 2016, letters persist in leveling these baseless accusations against the attorneys general, stating:

> This statement suggests that your office, as an arm of state government, will decide what science is valid and what science is invalid. In essence, you are saying that if your office disagrees with whether fossil fuel companies' scientists were conducting and using the "best science," the corporation could be held liable for fraud. Not only does the possibility exist that such action could have a chilling effect on scientists performing federally funded research, but it also could infringe on the civil rights of scientists who become targets of these inquiries. Your actions violate the scientists' First Amendment rights. Congress has a duty to investigate your efforts to criminalize scientific dissent.[10]

Nothing in that assertion bears any relationship to the statements of the various state attorneys general. These state investigations have nothing to do with deciding "what science is valid and what science is invalid." The investigations, as multiple attorneys general pointed out, are concerned with whether certain fossil fuel companies believed or knew one set of facts, and yet publically disseminated another in order to enrich themselves at others expense. These allegations constitute textbook fraud.[11]

These investigations have a well-known precedent. In the 1990s, various state attorneys general sued tobacco companies for the state-borne healthcare costs associated with tobacco use. One of the bases for the claims was that the tobacco industry engaged in a conspiracy to conceal and misrepresent "the addictive and harmful nature of tobacco/nicotine."[12] These suits resulted in the Master Settlement Agreement in 1998, where the four largest tobacco companies settled all pending state claims related to the healthcare costs related to tobacco.[13] The Federal Government soon followed suit. In

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[9] Letter from Frederick M. Boss, Deputy Attorney General, Oregon Department of Justice letter to Hon. Lamar Smith, Chairman, H. Comm. On Science, Space, & Tech., June 1, 2016, pg. 2.
[10] Letter from Hon. Lamar Smith, Chairman, H. Comm. On Science, Space, & Tech. to Hon. Eric Schneiderman, Attorney General, June 17, 2016, pg. 3.
[11] Black's Law Dictionary defines fraud as: "A knowing misrepresentation of the truth or concealment of a material fact to induce another to act to his or her detriment." Black's Law Dictionary 670 (7th ed. 1999).
[12] Civil Action Complaint, Commonwealth of Pennsylvania, *Commonwealth of Pennsylvania v. Philip Morris, Inc.*, pg. 10, April 1997.
[13] Tobacco Control Legal Consortium, *The Master Settlement Agreement: An Overview*, available at http://www.publichealthlawcenter.org/sites/default/files/resources/tclc-fs-msa-overview-2015.pdf

1999 the U.S. Department of Justice brought RICO Act actions against the largest tobacco companies.[14] The parallels of that case with the current state attorneys general investigations cannot be overstated. In *U.S. v. Philip Morris*, the government alleged that the tobacco industry internally knew of the health risks of their products for decades, yet engaged in a well-financed conspiracy to deceive the American public about the health effects of tobacco. This included financing scientific studies questioning the links between tobacco and health problems and the creation of front organizations to hide links to the tobacco financing. The U.S. government won the case, and the decision was upheld on appeal.[15]

I have repeatedly criticized your tendency to rely upon former tobacco industry-funded scientists, consultants, and public relations firms in past Committee investigations and hearings.[16] Given your past reliance on such "experts", it's perhaps unsurprising that you are now questioning these legitimate state attorneys general investigations of potential fraudulent actions against the American people.

The Majority's Investigation of State Attorneys General is Unconstitutional

A Congressional document demand to a state attorney general is exceptionally unusual. Such a demand from the Science Committee is unheard of.

State attorney generals are elected officials of sovereign state governments. They are not employees of the Federal Government, nor are they subject to federal oversight or control, including by the United States Congress.

You note in your June 17 letter that Congress's oversight powers are well established and broad, citing such authorities as the "U.S. Constitution, Art. 1; *McGrain v. Daugherty*, 273 U.S. 135 (1927) (Congress was investigating the U.S. Dep't of Justice's handling of the Teapot Dome scandal); *Eastland v. United States Servicemen's Fund*, 421 U.S. 491 (1975)(U.S. Senate committee investigating the activities of U.S. Servicemen's Fund and their effect on the morale of members of the Armed Services.)"[17] The existence of Congress's oversight powers goes without saying, and is a well-established principle of law. You go on to make an important point about the source of Congressional oversight power, stating:

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[14] U.S. Department of Justice, *Litigation Against Tobacco Companies Home*, https://www.justice.gov/civil/case-4

[15] *United States v. Philip Morris USA, Inc.*, 566 F.3d 1095 (D.C. Cir. 2009).

[16] *See*, e.g., Letter from Hon. Eddie Bernice Johnson, Ranking Member, to Hon. Lamar Smith, Chairman, H. Comm. On Science, Space, & Tech., August 6, 2013, available at http://democrats.science.house.gov/sites/democrats.science.house.gov/files/Letter.pdf
And, *Ensuring Open Science at EPA. Hearing Before the Subcomm. On the Environment of the H. Comm On Science, Space, & Tech.*, 113th Cong. 16-17 (2014) (statement of Hon. Eddie Bernice Johnson, Ranking Member).

[17] Letter from Hon. Lamar Smith, Chairman, H. Comm. On Science, Space, & Tech. to Hon. Eric Schneiderman, Attorney General, June 17, 2016, pg. 1 (note).

> Hand in hand with Congress' legislative power is its power to investigate. Indeed, in 1975, when commenting on Congress' investigative power, the Supreme Court stated that the "scope of its power of inquiry... is as penetrating and far-reaching as the potential power to enact and appropriate under the Constitution.[18]

This analysis is particularly relevant to the "investigation" at hand. Congress's broad oversight powers are directly tied to our power to legislate. Thus, by the authority you have relied upon in your own letters, Congress has no legal oversight authority over issues or actions that fall outside Congress's legislative authority.

As nearly every state attorney general who responded to your May 18 letters indicated, state government law enforcement officials acting in their official capacities are not within Congress' legislative control. For instance, in its May 27, 2016, response to your demand letter, the California Attorney General's Office noted:

> [w]e do not believe it is within the jurisdiction of Congress to demand documents from a state law enforcement official such as the California Attorney General. Although Congress' investigative jurisdiction is broad, that is because it tracks Congress' power to legislate and appropriate concerning federal matters. But the power to investigate does not extend beyond those matters. (See, e.g. *Barenblatt v. U.S.* (1959) 360 U.S. 109, 111 ["Congress may only investigate into those areas in which it may potentially legislate or appropriate"].) Investigations and prosecutions of state law enforcement actions by state attorneys general are not federal matters. To the contrary, under the Constitution and laws of the United States, such activities partake of police powers reserved to the states, and are not subject to federal interference. (See, e.g., *New York v. U.S.* (1992) 505 U.S. 144, 162 ["the Constitution has never been understood to confer upon Congress the ability to require the States to govern according to Congress' instructions"].)[19]

As a reminder, the Tenth Amendment to the U.S. Constitution reads as follows:

> The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.[20]

Implicit in the powers reserved to the states under the Tenth Amendment are state police powers. In case after case, the courts have struck down Congressional attempts to regulate state government activities, including exercise of their police powers.[21] It is clear that Congress has no legislative authority to dictate the actions of state attorneys general.

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[18] *Id.* at 1, citing *Eastland v. United States Servicemen's Fund*, 431 U.S. 491, 504 n. 15 (1975) (quoting *Barenblatt v. United States* 360 U.S. 109, 111 (1959)).

[19] Letter from Martin Goyette, Senior Assistant Attorney General, State of California Department of Justice letter to Hon. Lamar Smith, Chairman, H. Comm. On Science, Space, & Tech., May 27, 2016, pg. 2.

[20] U.S. Const. amend. X.

[21] *See, e.g., United States v. Lopez*, 514 U.S. 549 (1995) (striking down a gun-free school zone provision); *United States v. Morrison*, 529 U.S. 598 (2000) (invalidating a provision of the Violence Against Women Act); and, *United States v. Constantine*, 296 U.S. 287 (1935) (invalidating an excise tax imposed on violators of local law).

Even if Congress did have some inroad into regulation of state police powers, such a legislative authority would not rest with the Committee on Science, Space, and Technology. Our oversight jurisdiction (which is broader than our actual legislative jurisdiction) encompasses "laws, programs, and Government activities relating to nonmilitary research and development."[22] Note that the capitalization of the word "Government" gives the word the meaning "Federal Government." Nowhere in our jurisdiction - legislative or oversight - can one find justification for our Committee's oversight of state police powers. The elected officials that serve as state attorney generals are answerable to their respective constituents and the courts, but not to the U.S. Congress. As my colleagues from Virginia, the District of Columbia, and Maryland pointed out:

> States' rights long being a central pillar of conservative philosophy, the Letter's effort to meddle directly in the self-governance and prosecutorial discretion of 17 U.S. state and territories is not lacking for irony.[23]

The Majority's Investigation of NGOs' Exercise of Free Speech is Unconstitutional

The First Amendment to the U.S. Constitution reads, in whole:

> Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.[24]

While the First Amendment prohibits government interference with the free speech rights of individuals, that prohibition is not absolute. One relevant example is that fraudulent speech is not protected by the First Amendment.[25] Moreover, the First amendment does not provide an absolute shield against legitimate Congressional oversight. In that regard, you state in your June 17 letter to the various NGOs:

> In *Barenblatt v. United States*, the Supreme Court stated "where the First Amendment rights are asserted to bar government interrogation resolution of the issue always involves a balancing by the courts of the competing private and public interests at stake in the particular circumstances shown." Moreover, when balancing the interests of the parties in *Watkins v. United States*, the Court held "the critical element is the existence of, and the weight to be ascribed to, the interest of the Congress in demanding disclosure from an unwilling witness." These cases are important precisely because they provide examples of congressional investigations – sustained by the Supreme Court – involving

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[22] House Rule X(3)(k).
[23] Letter from Hon. Donald S. Beyer Jr., to Hon. Lamar Smith, Chairman, H. Comm. On Science, Space, & Tech., June 2, 2016, pg. 2.
[24] U.S. Const. amend. I.
[25] *See, Illinois v. Telemarketing Associates, Inc.*, 538 U.S. 600, 612 (2003).

> organizations similar to yours. The parties being investigated in the cases noted above are no different than the recipients of the Science Committee's May 18 letter.[26]

Since this is the only real legal authority you cite as justification for investigating Americans' constitutionally protected speech, I think it is worth scrutinizing.

First, I would like to point out the context of these cases. Both of these cases involved the notorious House Un-American Activities Committee (HUAC), and investigations that committee conducted into the private lives of American citizens. If ever there was an example of a "witch hunt" in the history of the United States Congress, the HUAC investigations best fit the bill. For that reason, it is more than a little disconcerting that you think those cases' fact patterns so closely resemble your own investigation.

I would also like to point to an error in your statement. You state that both of these cases are important because "they provide examples of congressional investigations – sustained by the Supreme Court – involving organizations similar to yours."[27] This statement is false. In *Watkins v. United States*, the Supreme Court overturned a conviction under 2 U.S.C. 192 against an individual who refused to provide certain testimony to HUAC.[28] The Watkins Court held that the conviction was invalid under the Due Process Clause of the Fifth Amendment.

Rather than supporting the legal grounds of your investigation, the *Watkins* decision is actually an indictment against it. The *Watkins* court noted that:

> The Court recognized the restraints of the Bill of Rights upon congressional investigations in United States v. Rumely, 345 U.S. 41... It was concluded that, when First Amendment rights are threatened, the delegation of power to the committee must be clearly revealed in its charter.[29]

The *Watkins* Court went on to state:

> Kilbourn v. Thompson teaches that such an investigation into individual affairs is invalid if unrelated to any legislative purpose. That is beyond the powers conferred upon the Congress in the Constitution. United States v. Rumely makes it plain that the mere semblance of legislative purpose would not justify an inquiry in the face of the Bill of Rights.[30]

As I noted earlier, it is clear that our Committee doesn't even have a semblance of a legislative purpose that would justify this investigation. It is inconceivable that our

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[26] Letter from Hon. Lamar Smith, Chairman, H. Comm. On Science, Space, & Tech. to Richard Heede, Climate Accountability Institute, June 17, 2016, pg. 4 (citations omitted).
[27] *Id.* emphasis added.
[28] *Watkins v. United States*, 354 U.S. 178 (1957).
[29] *Id.* at 198.
[30] *Id.*

Committee, based on our House Rule X jurisdiction, could legislate on any topic related to state law enforcement, private speech, private citizens exercising their First Amendment right to petition their government, or fraud. In fact, the only plausible legislative action that Congress as a whole could take in this instance would be in altering Federal fraud and RICO Act statutes to inappropriately help big oil avoid potential liability. However, even in that instance, such a bill would not come anywhere near the jurisdiction of the Committee on Science, Space, and Technology.

Your June 17 letter claims legislative jurisdiction over this "investigation" because we oversee $31.8 billion in annual federal government research expenditures. Somehow you link the Committee's specific jurisdiction to fund federal scientific research to being the science police for the United States. Even if we had such expansive jurisdiction (and we do not), it would still fall far short of having jurisdiction over state police powers or fraud laws, which are the true subject matters of this "investigation." Thus, based on the legal authorities you yourself have cited, this "investigation" violates the Constitution.

This "Investigation" is Illegitimate

In the foregoing, I have pointed out the many factual and legal shortcomings and mischaracterizations contained in your May 18 and June 17 letters. Sadly, despite having these shortcomings previously noted to you, this misguided effort is continuing. In reality, this overreach is simply the culmination of three years of "oversight" run amuck. When you assumed the Chairmanship of this Committee, Members were promised an ambitious and bipartisan legislative agenda. That did not materialize. What has taken its place is a series of increasingly disturbing "fishing expeditions" masquerading as oversight.

I noted your May and June letters contain a great deal of unintentional irony. I'll note one more example. In your June 17 letter, as a justification for your current investigation you say:

> [C]ongress has a responsibility to investigate whether such investigations are having a chilling effect on the free flow of scientific inquiry and debate regarding climate change.[31]

Here, you could just as well be referring to your own misguided investigation into eminent NOAA climate scientists last year. In that "investigation" you actually subpoenaed NOAA Administrator, former astronaut, and authentic American hero Dr. Kathy Sullivan in an attempt to obtain the email communications of world renowned NOAA climate scientists.[32] What was the purpose of this investigation? It was simply a fishing expedition against scientists who reached a scientific conclusion with which you

[31] Letter from Hon. Lamar Smith, Chairman, H. Comm. On Science, Space, & Tech. to Richard Heede, Climate Accountability Institute, June 17, 2016, pg. 3.
[32] Committee on Science, Space, and Technology Subpoena Duces Tecum issued by Hon. Lamar Smith, Chairman, to Hon. Kathyrn Sullivan, 114th Cong., October 13, 2015.

personally disagreed. In the end, your investigation, like so many recent Science Committee investigations, found nothing.

I have served on the Committee on Science for more than two decades, and during that time this Committee has accomplished great things. We've overseen the completion of the International Space Station and the sequencing of the human genome, and we've undertaken serious investigations, ranging from the Space Shuttle Challenger accident to the environmental crimes at the Rocky Flats nuclear site. However, lately the Committee on Science has seemed more like a Committee on Harassment. The Committee's prolific, aimless, and jurisdictionally questionable oversight activities have grown increasingly mean-spirited and meaningless. They frequently appear to be designed primarily to generate press releases. However, none of these recent investigations has rushed head long into a serious Constitutional crisis like we are about to face. We are moving into dangerous and uncharted territory.

At the beginning of this Congress I swore an oath to uphold the Constitution. I take that oath seriously. As evidenced by the letters you have received from Democratic Members from New York, California, Virginia, Maryland, and the District of Columbia, the Democratic Members of the Committee also take this oath seriously. We will not sit idly by while the powers of the Committee are used to trample on the Bill of Rights of the U.S. Constitution. I implore you to cease your current actions before they do lasting institutional damage to the Committee on Science, Space, and Technology and the Congress as a whole.

Thank you for your attention to this matter.

Sincerely,

Eddie Bernice

EDDIE BERNICE JOHNSON
Ranking Member
Committee on Science, Space, and Technology

Cc: Members of the Committee on Science, Space, and Technology

California, Connecticut, District of Columbia, Iowa, Illinois, Massachusetts, Maryland, Maine, Minnesota, New Mexico, New York, Oregon, Rhode Island, U.S. Virgin Islands, Virginia, Vermont, Washington Attorneys General and 350.org, Climate Accountability Institute, The Climate Reality Project, Greenpeace, Pawa Law Group, P.C., The Rockefeller Brothers Fund, Rockefeller Family Fund, Union of Concerned Scientists

Exhibit OO

NO. 017-284890-16

EXXON MOBIL CORPORATION	§	IN THE DISTRICT COURT OF
	§	
Plaintiff,	§	
	§	
v.	§	
	§	
CLAUDE EARL WALKER, Attorney General of the United States Virgin Islands, in his official capacity, COHEN MILSTEIN SELLERS & TOLL, PLLC, in its official capacity as designee, and LINDA SINGER, in her official capacity as designee,	§	TARRANT COUNTY, TEXAS
	§	
Defendants.	§	17TH JUDICIAL DISTRICT

PLEA IN INTERVENTION OF THE STATES OF TEXAS AND ALABAMA

The States of Texas and Alabama intervene under Rule 60 of the Texas Rules of Civil Procedure to protect the due process rights of their residents.

I. Background.

At a recent gathering on climate change in New York City, Claude Earl Walker, Attorney General of the United States Virgin Islands, announced an investigation by his office ("Investigation") into a company whose product he claims "is destroying this earth." Pl. Compl. Ex. B at 16. A week earlier, ExxonMobil Corporation, a New Jersey corporation with principal offices in Texas, was served with a subpoena seeking documents responsive to alleged violations of the penal code of the Virgin Islands. *Id.* at ¶ 20, Ex. A at 1. Though General Walker signed the subpoena, it arrived in an envelope postmarked in Washington, D.C, with a return address for Cohen Milstein, a law firm that

describes itself as a "pioneer in plaintiff class action lawsuits" and "the most effective law firm in the United States for lawsuits with a strong social and political component." *Id.* at ¶¶ 4, 20. ExxonMobil now seeks to quash the subpoena in Texas state court, asserting, *inter alia*, that the Investigation violates the First Amendment and that the participation of Cohen Milstein, allegedly on a contingency fee basis, is an unconstitutional delegation of prosecutorial power. *See generally id.*

The intervenors are States whose sovereign power and investigative and prosecutorial authority are implicated by the issues and tactics raised herein. General Walker's Investigation appears to be driven by ideology, and not law, as demonstrated not only by his collusion with Cohen Milstein, but also by his request for almost four decades worth of material from a company with no business operations, employees, or assets in the Virgin Islands. *Id.* at ¶ 7. And it is disconcerting that the apparent pilot of the discovery expedition is a private law firm that could take home a percentage of penalties (if assessed) available only to government prosecutors. We agree with ExxonMobil that serious jurisdictional concerns exist, but to protect the fundamental right of impartiality in criminal and quasi-criminal investigations, we intervene.

II. Standard for Intervention.

Rule of Civil Procedure 60 provides that "[a]ny party may intervene by filing a pleading, subject to being stricken out by the court for sufficient cause on the motion of any party." TEX. R. CIV. P. 60. "Rule 60 . . . provides . . . that

any party may intervene" in litigation in which they have a sufficient interest *Mendez v. Brewer*, 626 S W 2d 498, 499 (Tex 1982). "A party has a justiciable interest in a lawsuit, and thus a right to intervene, when his interests will be affected by the litigation." *Jabri v. Alsayyed*, 145 S.W.3d 660, 672 (Tex. App.—Houston [14th Dist.] 2004, no pet) (citing *Law Offices of Windle Turley v. Ghiasinejad*, 109 S W.3d 68, 71 (Tex. App —Fort Worth 2003, no pet)). And an intervenor is not required to secure a court's permission to intervene in a cause of action or prove that it has standing *Guar. Fed. Sav. Bank v. Horseshoe Operating Co.*, 793 S.W 2d 652, 657 (Tex. 1990)

There is no pre-judgment deadline for intervention *Tex. Mut. Ins. Co. v. Ledbetter*, 251 S.W.3d 31, 36 (Tex. 2008). Texas courts recognize an "expansive" intervention doctrine in which a plea in intervention is untimely only if it is "filed after judgment" *State v. Naylor*, 466 S W 3d 783, 788 (Tex 2015) (quoting *First Alief Bank v. White*, 682 S.W.2d 251, 252 (Tex. 1984)). There is no final judgment in this case, thus making the States' intervention timely

III. Intervenors Have an Interest in Ensuring Constitutional Safeguards for Prosecutions of its Residents.

The alleged use of contingency fees in this case raises serious due process considerations that the intervenors have an interest in protecting.

To begin, government attorneys have a constitutional duty to act impartially in the execution of their office. The Supreme Court has explained that attorneys who represent the public do not represent an ordinary party in litigation, but "a sovereignty whose obligation to govern impartially is as

compelling as its obligation to govern at all." *Berger v. United States*, 295 U.S. 78, 88, (1935).

Contingency fee arrangements cut against the duty of impartiality by giving the attorney that represents the government a financial stake in the outcome. Thus, the use of contingency fees is highly suspect in criminal cases and, more generally, when fundamental rights are at stake. *State v. Lead Indus., Ass'n, Inc.*, 951 A.2d 428, 476 n. 48 (R.I. 2008) (doubting that contingent fees would ever be appropriate in a criminal case); *Int'l Paper Co. v. Harris Cty.*, 445 S.W.3d 379, 393 (Tex. App.—Houston [1st Dist.] 2013, no pet.) (contingency fees are impermissible in cases implicating fundamental rights).

Here, the Investigation appears to be a punitive enforcement action, as all of the statutes that ExxonMobil purportedly violated are found in the criminal code of the Virgin Islands. 14 V.I.C. §§ 551, 605, 834. In addition, ExxonMobil asserts a First Amendment interest to be free from viewpoint discrimination. Intervenors, in sum, have a strong interest in ensuring that contingency fee arrangements are not used in criminal and quasi criminal cases where a multitude of fundamental rights, including speech, lie in the balance.

IV. Conclusion and Prayer for Relief.

The States identified herein, Texas and Alabama, by and through this intervention, request notice and appearance, and the opportunity to defend the rule of law before this Court.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing pleading has been served on the following counsel of record on this 16th day of May, 2016, in accordance with Rule 21a of the Texas Rules of Civil Procedure, electronically through the electronic filing manager:

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Exhibit PP

AN ENERGY POLICY ESSAY

Revenue-Neutral Carbon Taxes in the Real World

Insights from British Columbia and Australia

by Jeremy Carl and David Fedor

Shultz-Stephenson Task Force on Energy Policy
www.hoover.org/taskforces/energy-policy

task force on energy policy

Introduction

While the scientific and economic implications of climate change remain highly contested, the idea of a net revenue-neutral tax on carbon dioxide emissions has been proposed by a number of economists from across the ideological spectrum as one possible way to help level the playing field among different sources of energy by accounting for the potential externalities of carbon emissions. At the same time other economists have criticized carbon pricing, both from the right and the left, as either a utopian scheme inappropriate to address a global problem or as a band-aid that will not fundamentally limit carbon emissions. In a revenue-neutral carbon tax regime, all revenues generated from taxes on carbon emissions would be directly returned to the taxed economy through an equivalent reduction in other existing taxes or through direct payments to taxpayers. Depending on the particular structure utilized, these may be referred to as a "revenue-neutral carbon tax" or a "carbon tax shift/swap" or a "carbon fee and dividend".

What the arguments for such a policy structure, both pro and con, have often lacked is detailed analysis of the performance and design of revenue-neutral carbon taxes in the real world. This paper attempts to address that gap. It examines the revenue-recycling carbon pricing mechanisms already enacted in British Columbia and Australia in order to assess their approach and efficacy.

Modern Carbon Tax Forays: British Columbia and Australia

The Canadian Province of British Columbia was an early adopter of a revenue-neutral carbon tax that directly recycles 100% of the revenue it generates. British Columbia now has four years of experience on carbon tax implementation and revenue distribution. Australia, after years of discussion with stakeholders from across the

HOOVER INSTITUTION
STANFORD UNIVERSITY

economy, has now designed and implemented a partially-revenue-recycling carbon tax from July 2012. Though both regions adopted broad-based taxes on greenhouse gas (GHG) emissions, they have chosen different design and implementation strategies that reflect their respective existing political, economic, and energy use characteristics.

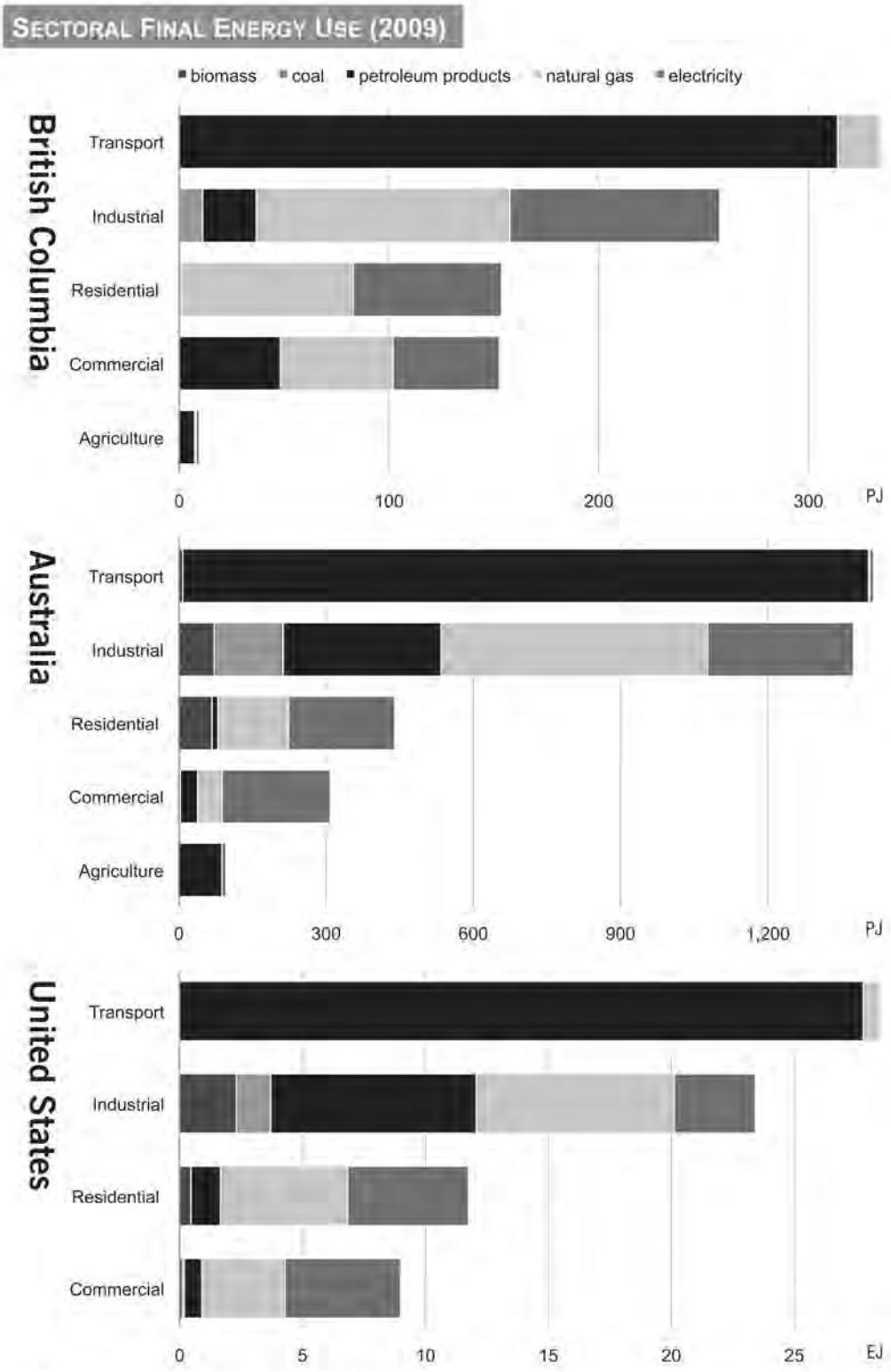
Taken together, the British Columbian and Australian choices help to illustrate the spectrum of options, dynamics, and pitfalls that can be anticipated by other regions such as the United States that have not yet decided whether or how to value the potential negative externalities of GHG emissions. Key issues include where to apply or exempt a carbon tax within an economy, how to distribute carbon tax revenues, the relationship between carbon and other taxes, and the robustness of the carbon tax to stakeholder petitioning during design or implementation. To this last point, British Columbia presents the very rare case of a straightforward and relatively transparent revenue-neutral carbon tax that has so far managed to avoid major dilution from impacted stakeholders. Australia's proposal, on the other hand, reflects the political challenges of effectively enacting such a tax on carbon-intensive economy while upholding free-market principles. Following these investigations, we offer the case of the United States and consider at a high level how experiences abroad may or may not be relevant given the unique conditions here.

British Columbia presents the very rare case of a straightforward and relatively transparent revenue-neutral carbon tax that has so far managed to avoid major dilution from impacted stakeholders.

REGIONAL ECONOMIC, ENERGY, AND GHG EMISSION CHARACTERISTICS

	British Columbia	Australia	United States	
General				
GPD per Capita	37,200	44,600	46,000	*exchange rate, y2009 USD per person*
Primary Energy Use per Capita	0.20	0.28	0.33	*TJ per person*
Carbon Dioxide Emissions per Capita	11.3	18.8	17.7	*metric tons per person*
Carbon Intensity of Final Energy	56.4	108.1	74.7	*metric tons per TJ*
Carbon Intensity of Economy	0.305	0.406	0.384	*metric tons per 1000 y2009 USD*
Average Residential Electricity Price	0.09	0.20	0.12	*y2010 USD per KwH, not including carbon price*
Average Residential Natural Gas Price	12.50	20.10	11.80	*y2010 USD per mmBTU, not including carbon price*
Average Retail Price of Mid-Grade Gasoline	3.60	3.67	2.40	*y2009 USD per gallon, including taxes but not carbon price*
Passenger Vehicle Travel Demand	5,070	4,620	9,540	*passenger-vehicle-miles per person, data for 2007*
GHG emission inventory				
Electricity and Heat Generation	2%	38%	33%	
Transport	39%	15%	26%	
Manufacturing, Construction, Other Industrial	13%	8%	14%	*direct energy use only*
Residential, Commerical, Agricultural	12%	4%	9%	*direct energy use only*
Fossil Fuel Production and Refining	11%	4%	3%	*US figure estimated*
Non-Energy Emissions	15%	26%	13%	
Fugitive Emissions	9%	7%	6%	
Electricity supply mix				
Coal	0%	75%	44%	
Natural Gas	4%	15%	25%	
Oil + other	4%	2%	1%	
Nuclear	0%	0%	20%	
Hydro + Other Primary Renewable	90%	8%	11%	

Source: Data for 2009, compiled by the authors from national statistics and energy information bureaus; GHG data are from national inventory reports to the UNFCCC.



Source: charts by the authors with data compiled from: Statistics Canada (2011) Report on Energy Supply and Demand in Canada, 2009 Preliminary. Catalogue #57-003-X; ABARE (2011) Energy Update 2011. Australian Government; US EIA (2010) Annual Energy Review 2009. US Department of Energy.

BRITISH COLUMBIA

Policy Design

British Columbia's carbon tax policy, originally put forward by the center-right Liberal Party of Canada, was implemented in 2008 amid broader provincial tax reforms and continues to this day. The tax, which began at CAD $10 per metric ton carbon dioxide and has since risen to CAD $30, is implemented through a fuel-specific volumetric tax applied the first point of entry or sale and is allowed to filter broadly through the economy. Carbon tax revenues offset existing provincial personal and corporate taxes and now represent about 4% of the total government budget. The tax's relatively simple structure allows very few exemptions or protected entities, and provincial economic growth has so far exceeded the Canadian average over the tax's implementation period. Public and political acceptance for the measure is generally good amid British Columbia's electorate; after five years of experience, however, some tensions have formed over the tax's future form and direction. Though the policy's impact has not been comprehensively modeled, a June 2012 report by the British Columbia government indicates that provincial carbon emissions and fuel use fell relative to historical and broader Canadian trends over the policy's early years.

The tax's relatively simple structure allows very few exemptions or protected entities, and provincial economic growth has so far exceeded the Canadian average over the tax's implementation period.

In originally introducing this so-called "carbon tax shift", the British Columbia Ministry of Finance laid out five broad implementation principles:

1. "All carbon tax revenue is recycled through tax reductions"

The policy includes a legal requirement to demonstrate how all of the carbon tax revenue is returned to provincial taxpayers. The primary mechanisms for this are broad reductions in personal and corporate income tax rates supplemented by direct annual payments to low-income households. A cautious approach toward returning carbon tax revenue has meant that the carbon tax has in fact been revenue-negative in each year for the British Columbia government; income tax reductions are set in advance of tallying annual carbon tax receipts and are calibrated based upon economic forecasts, which creates some uncertainty in the final net revenue level.[1] Nominal net tax refund in the first four years of the program exceed CAD $500 million (an equivalent, on a population basis, of a USD $35 billion refund on a nationwide carbon tax in the United States).

Specific historic carbon tax revenue receipts and recycling tax measures are described in the table below. Note the gradual growth in gross carbon tax revenue over time and

the shares of tax benefits and dividends distributed through various mechanisms to business and individuals; total business tax benefits have generally exceeded those for individuals. This has recently become a point of public discontent as some now feel that provincial businesses got too good of a "deal" with the carbon tax's corporate tax breaks. The table also indicates how tax benefits were gradually ramped up alongside the increasing carbon tax, "rewarding" British Columbians in stages as policy implementation progressed:

	FY 2008/9 @ $10/ton	**2009/10** $15/ton	**2010/11** $20/ton	**2011/12*** $25/ton
Gross Carbon Tax Revenue (million CAD)	**$306**	**$542**	**$741**	**$960**
Individual benefits				
Low income climate action tax credit	–106	–153	–165	–188
Reduction of 2% in the first two personal income tax bracket rates				
Reduction of 5% effective Jan 2009	–107	–206	–207	–218
Northern and rural homeowner payment of CAD $200			–19	–75
Individuals' share of carbon revenue	*70%*	*66%*	*53%*	*50%*
Business benefits				
General corporate income tax rate cut from 12% to 11%				
To 10.5% effect Jan 1 2010				
To 10% effective Jan 1 2011	–65	–152	–271	–381
Small business corporate tax rate cut from 4.5% to 3.5				
To 2.5% effective December 2008	–35	–164	–144	–220
Industrial property tax credits		–54	–58	–68
Farm property tax credits			–1	–2
Business' share of carbon revenue	*33%*	*68%*	*64%*	*70%*
Net Government Carbon Tax Revenue	**–$7**	**–$187**	**–$124**	**–$192**

Source: Table by authors, data compiled from yearly BC MOF budget and fiscal plans, with updates.
* Revised forecast from 2012 budget, subject to updates

2. "The tax rate started low and increased gradually"

The implementation of the carbon tax was staged over five years with the tax rising from CAD $10 to CAD $30 to allow time for British Columbians to adjust their energy use and to provide rate certainty. At its current CAD $30 rate, the tax is about CAD 25 cents per gallon of gasoline or CAD $1.58 per mmBTU natural gas.[2] As noted in the revenue chart above, tax revenue-recycling measures were also scheduled to increase alongside expected rising revenues from the carbon tax from 2008 to 2012, though the distribution of these recycling measures across different recipients changed with time. In 2010, average carbon tax payments were about CAD $200 per household, with a range of CAD $113 per household in the lowest-income 10% rising to CAD $300 in the top 10%, and CAD $617 in the top 1% of households.[3]

3. "Low-income individuals and families are protected"

Because direct energy costs make up a larger proportion of total income and spending for lower-income households, the British Columbia carbon tax policy aimed to use carbon tax revenues to compensate this population for what was otherwise considered to be a regressive tax burden with the intent that most low-income households would actually be better off under the carbon tax policy. As of July 2011, low-income households received a tax benefit of approximately CAD $115.50 per year for adults and CAD $34.50 for children, phased out above annual incomes of CAD $30,000 for individuals or $35,000 for families. This tax benefit is figured based upon previous year tax returns, and it piggy-backs on the existing Canadian federal general sales tax (GST) credit.

Other *ad hoc* compensation as part of the carbon tax policy included the introduction of a "northern and rural homeowner benefit" of CAD $200 per year to compensate these British Columbia residents who face higher annual home heating costs and a one-time initial direct "Climate Action Dividend" payment of CAD $100 to all British Columbia residents at the outset of the carbon tax policy's implementation (which was actually paid for by the previous year's general government surplus rather than carbon tax revenues).

4. "The tax has the broadest possible base"

The British Columbia carbon tax targets carbon dioxide, methane, and nitrous oxide that is created and emitted through the combustion of hydrocarbon fuels in all sectors of the economy. While not exhaustive, this gives the tax a relatively broad base, estimated to be approximately 70–75% of total provincial anthropogenic GHG emissions.[4] Emissions from biofuels, fuel sold to First Nations (Canadian indigenous) populations, fuel sold for international marine and air travel, non-energy sources (such as waste, agriculture, or industrial chemical reactions), and fugitive emissions are exempted. A fuel-specific tax, published by the government in the fuel's natural units, is applied at the wholesale level for fuel that is to be sold and combusted within the province and is administered similarly to conventional motor fuel taxes.[5] Businesses and individuals therefore both pay direct carbon taxes on fuel purchased for combustion within the province and are impacted by increased costs for intra-province embedded emissions in goods and services. Emissions which are "embedded" into a non-energy good or service produced outside of the province and imported to be sold within are not estimated or taxed, and non-energy goods or services produced inside the province for export are not refunded for the carbon tax paid to produce them. That is, in the interest of policy simplicity, there is little attempt to enact "border tax adjustments" for non-energy embedded emissions.[6]

5. "The tax will be integrated with other measures"

According to the British Columbia government, its carbon tax policy was created to help achieve previously established provincial GHG emission mitigation and climate change targets of 33% below 2007 levels by 2020 and an 80% reduction by 2050. At the

time of its introduction, however, it was noted that even at its highest scheduled level of CAD $30 per ton carbon dioxide-equivalent, the carbon tax alone would not be sufficient to meet these goals. It was therefore accompanied by a package of other targeted emission-mitigation policies and strategies, including a stated intent to join the proposed "Western Climate Initiative" cap-and-trade program with several Canadian provinces and western U.S. states at some future point.[7]

Region-specific Considerations

There are several different considerations that are unique to the British Columbia situation that are worth examining as context for its policy choices.

Extremely low-carbon electricity supply

Most importantly, 90% of British Columbia's electricity supply is generated from hydropower or other primary renewable resources that emit very little GHGs, and an even higher percentage of utility electricity distributed to individual consumers is carbon-free. This means that the British Columbia carbon tax policy essentially does not affect provincial electricity prices; most of its impact for individual households is on the price of gasoline used in private vehicles and natural gas used in home heating, and industrial or commercial electricity use is similarly unaffected in price. This variance is highly salient when attempting to extrapolate the viability of a British Columbia-style system to other regions.[8]

Moreover, on the supply side, this existing low-carbon electricity system meant that British Columbia was able to largely avoid having a concentrated carbon tax burden fall on fossil fuel-fired thermal power generators. This removed a key stumbling block that would be a policy design or political challenge elsewhere.[9]

Economic structure

British Columbia has been able to recycle carbon tax revenue to the business sector through a straight reduction in general corporate or small business income taxes. Since the 2009/10 carbon tax year, revenue recycling measures to the business sector have exceeded 50% of total revenue distributions, and in the 2011/2012 year business recycling measures were estimated to be 58% of total allocations, equal to nearly 70% of total collected carbon tax revenue.[10] Combined with a relatively non-concentrated GHG emission business profile, as described above, business acceptance of the carbon tax policy (coupled with business tax breaks) has seemed good—too good, perhaps, as corporate tax breaks have now come under popular fire as having been too generous. Exceptions are GHG-intensive export-oriented businesses, which must compete with out-of-province producers not facing British Columbia's carbon tax. In British Columbia, such industries include cement production and greenhouse growers. For the first time, in 2012, the British Columbia Ministry of Finance announced a one-time targeted relief grant of CAD $7.6 million to provincial greenhouse growers.[11]

Broader ongoing tax reforms

It is important to note that discussion around and implementation of the British Columbia carbon tax policy, attention-worthy on its own, was contemporaneous with broader dramatic tax reform within the province. In fact, considering the context, it seems unlikely that British Columbia could have accomplished its carbon pricing absent a larger tax reform that took political heat away from the carbon issue.[12]

In particular, British Columbia in the later part of the decade was party to Canadian efforts at the federal level to adjust disparate provincial sales tax systems into a more unified and consistent "harmonized sales tax" (HST) whereby taxes on goods and services at the provincial level would follow similar conventions to the existing federal "general sales tax" (GST) system. The aim of this was to simplify the tax code and reduce the compliance and bureaucratic costs of maintaining parallel systems, but it meant that tax burdens within a province would shift from the *status quo* across products and consumers. For our discussion, this is important because it meant that the carbon tax, though novel, was just one of many tax changes that British Columbians had to consider or be impacted by since 2008.[13] The HST caused substantial rifts in the ruling coalition which in many ways overshadowed the carbon tax's impact.

> Post the carbon tax, British Columbia has the lowest income tax for those making under CAD $120,000, corporate taxes that are the lowest in the G7, and small-business taxes that are the lowest in Canada.

Compared to existing motor fuel taxes

It is useful to consider British Columbia's total tax burden on gasoline and diesel in relation to the carbon tax, as motor fuel is a major incidence of the carbon tax burden and also is subject to numerous other revenue-raising taxes.[14] Given British Columbia's nearly carbon-free electricity system, motor fuels are the most salient manifestation of the carbon tax for individuals, yet even here the carbon tax's incidence is small compared to other motor fuel excise taxes and the short-term volatility in the underlying oil product price itself.

Apart from the provincial carbon tax, British Columbia motor fuels are subject to Canadian federal excise (motor fuel tax), a British Columbia Transportation Financing Authority tax, mass transit-funding taxes that vary by region within the province, and the Canadian GST. Taken together, this means that the provincial carbon tax level of CAD 8.5–25.2 cents per gallon over the 2008–2012 period has so far represented between just 6.1–12.1% of total gasoline taxes, or between 2.0–3.9% of the total price per gallon of gasoline in Vancouver.[15] This is a relatively small share of the existing motor fuel tax burden; in fact, in the Vancouver region, new increases in the local mass transit-funding excise tax on gasoline alone since the outset of the carbon tax policy nearly match the entire incidence of the gasoline carbon tax.[16]

AUSTRALIA

Policy Design

The Australian government implemented in July 2012 a broad-based tax on GHG emissions from about 350 of the country's largest GHG emitters as part of its climate change strategy. While not explicitly revenue-neutral, this tax policy stipulates that over 50% of carbon revenues will be directly returned to individual households through a combination of income tax breaks and direct payments and that 40% of carbon tax revenues will be dedicated to government spending programs intended to provide targeted assistance to particularly hard-hit business sectors. Similar to British Columbia, the Australian carbon tax has been implemented alongside a broader comprehensive multi-year tax system reform.[17]

The tax is set at AUD $23.00 per metric ton carbon dioxide-equivalent in 2012–13, rising to AUD $24.15 in 2013–14 and AUD $25.40 in 2014–2015 before a scheduled gradual transition to a market-based floating carbon price in 2015, potentially linked to an international carbon cap-and-trade system. Therefore, the set carbon tax is envisioned as just the first step of a two-stage carbon pricing policy in Australia.

Unlike the general fuel-focused British Columbia carbon tax, the Australian carbon tax is applied quite selectively throughout the economy. Only major emitters' GHG pollution is directly covered, though this coverage does include major non-energy and fugitive GHG emissions;[18] these top emitters, whose annual emissions in general exceed 25,000 metric tons per year of carbon dioxide-equivalent, represent about 60% of total Australian GHG emissions. The Australian carbon tax does not cover motor fuel used for on-road transport and also exempts the agriculture and land use sectors, though fuel used for commercial aviation, shipping, and rail services is set for inclusion.

Similar to British Columbia, the Australian carbon tax has been implemented alongside a broader comprehensive multi-year tax system reform.

Although direct final combustion of hydrocarbon fuels such as motor fuels, natural gas, or biomass by small-scale residential and commercial end-users is not directly affected by the Australian carbon tax, individual households are nevertheless expected to see increased consumer costs from higher carbon-intensive electricity rates and the embedded emissions of other goods and services produced within Australia (including, for example, domestically refined gasoline). The Australian government estimates that the consumer price index will rise by 0.7% in the first year as a result of the carbon tax. To address this, at least 50% of carbon tax revenues are allocated for "household assistance" to compensate households for these higher costs, with an average household compensation of about AUD $10.10 per week,

according to government estimates. Such household assistance includes: (1) increases in pensions, allowances, and "family payments", and; (2) income tax cuts for annual incomes less than AUD $80,000, including raising the tax-free threshold for lower income brackets.

Australian businesses do not receive a general corporate tax rate deduction funded through the carbon tax as in British Columbia, but 40% of carbon tax revenues have been allocated help major industries reduce emissions, especially those emission-intensive businesses that compete against untaxed foreign competitors.[19] This laundry list of sectoral carve-outs and targeted benefits is extensive, with the coal-fired power and metallurgic industries receiving a significant share of total benefits. These six spending categories, along with estimates of their fiscal impact, are enumerated in the table below. Note that, similar to the British Columbia case, the Australian government expects the entire carbon-tax program to actually be significantly revenue-negative (i.e. a tax cut):

	FY 2011/12	2012/13	2013/14	2014/15
Gross Carbon Tax Revenue (million AUD)		**$8,600**	**$9,080**	**$9,580**
Household Benefits				
Tax reforms		–3,350	–2,370	–2,320
Direct transfer payments (pensions, family payments, veterans, elderly)	–1,470	–746	–2,301	–2,380
Other (low carbon communities, household efficieny, household assistance)	–63	–100	–132	–125
Households' share of carbon revenue	*56%**	*49%*	*53%*	*50%*
Business Benefits				
"Jobs and competitiveness program"		–2,851	–3,059	–3,312
"Clean technology program"	–19	–142	–245	–312
Increased small business instant asset write-off			–100	–100
Regional subsidies		–10	–50	–30
Other business energy efficiency measures	–7	–15	–21	–19
Business' share of carbon revenue	*1%**	*35%*	*38%*	*39%*
"Transitional" Measures				
Carbon tax credits for coal-fired power producers + Negotiated government buyouts of inefficient coal-fired power plants	–1,009	–1	–1,003	–1,042
"Clean Energy Finance Corp."				
Financing to deploy renewable, low-carbon, and efficiency infrastructure + Subsidies to manufactureres of renewable energy equipment	–2	–21	–467	–455
Land and Carbon Sink Measures				
"Carbon Farming Initiative" + "Biodiversity Fund" + Other carbon sink land management subsidy programs	–69	–131	–506	–489
Governance				
Establishment of a "Clean Energy Regulator" and other adminstrative costs	–78	–90	–106	–107
Net Government Carbon Tax Revenue	**–$2,716**	**$1,144**	**–$1,279**	**–$1,110**

Source: Table by authors from data published in the "Clean Future Final Plan", Australian Government 2011.
* Share of total payments as no carbon revenues are collected in FY 2011/12.

Region-specific Considerations

The form of the Australian carbon tax policy is practically the reverse of British Columbia's. While both aim to apply a fixed carbon price across a broad swath of economy-wide GHG emissions, Australia has chosen to focus on all GHG emissions from only the largest emitting businesses, whereas British Columbia chose a carbon dioxide-focused fuel tax evenly applied across all end-users, including individual direct combustion for vehicles and home heating (two areas specifically exempted in Australia). And though both policies aim to recycle carbon tax revenues similarly for individual households, they take an opposite approach toward compensating businesses.

Extremely carbon-intensive electricity sector

One explanation for this different policy strategy is the nature of the two regions' electricity systems; whereas British Columbian electricity relies on hydropower and is nearly carbon-free, nearly 75% of the Australian electricity system is supplied by carbon-intensive coal and only 8% by low-carbon renewables such as hydropower. The Australian government estimates that electricity price rate increases will represent about one-third of the total carbon tax costs borne by households, or about 10% higher electricity costs. Taken together with higher embedded emission costs from other goods and services produced in Australia's particularly carbon-intensive economy, this means that individual households in Australia will face cost-of-living increases that are similar to (or slightly less than) the increases seen in British Columbia at a comparable carbon price—even with Australian household end-use exemptions on motor fuel.[20]

The carbon-intensive nature of the Australian electricity sector also helps explain why the government has chosen to direct carbon tax revenues to sector-specific business assistance rather than the broad tax breaks adopted in British Columbia. Industry is the largest user of electricity in Australia, and carbon costs will be particularly concentrated in electricity-intensive sectors such as aluminum and mining. Moreover, the coal-fired electric generators themselves, as major GHG emitters, face a heavy carbon tax burden the prospect of uneconomic stranded investments.

Industry focus

Because of its natural resource and export-heavy economic structure and coal-dependent fuel profile, GHG emissions in Australia are relatively concentrated in singular large emitters. For example, when accounting for indirect GHG emissions from purchased electricity, the Australian manufacturing and mining sectors together account for 39% of total GHG emissions. Adding GHG emissions from the waste sector, fugitive emissions such as those from energy production, and commercial transport services means that about 60% of total GHG emissions can be accounted for simply by focusing on about 350 of the country's largest emitters out of an estimated 2 million registered Australian businesses.[21] Though embedded carbon emission costs do certainly affect the broader economy, such a targeted approach is thought to

potentially lower bureaucratic and compliance costs of implementing the policy, as well as reduce the number of direct stakeholders. Like the comprehensive carbon cap-and-trade bills attempted in the United States, however, this approach opens the political process to significant opportunities for gaming and regulatory capture by organized business interests.[22]

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THE UNITED STATES

What can the experiences of British Columbia and Australia teach the U.S.?

Though the United States has not implemented a revenue-neutral carbon tax, the debate regarding carbon pricing, both for and against, has recently been attracting considerable public attention for the diversity of its participants.[23] In the wake of failed attempts to pass an ambitious and complex economy-wide cap-and-trade bill, as an alternative to potential court-ordered direct regulation of carbon emissions by the EPA through the Clean Air Act, and with an eye toward comprehensive federal tax reforms, politicians and economists have once again tabled revenue-neutral carbon taxes as one policy option among the many to be considered. And while the carbon tax experiences of British Columbia and Australia to date do illustrate valuable real-world dynamics and design choices, the energy and economic differences between them and the United States limit their direct relevance.

In the wake of failed attempts to pass an ambitious and complex economy-wide cap-and-trade bill, as an alternative to potential court-ordered direct regulation of carbon emissions by the EPA through the Clean Air Act, and with an eye toward comprehensive federal tax reforms, politicians and economists have once again tabled revenue-neutral carbon taxes as one policy option among the many to be considered.

Region-specific Considerations

At first look, the United States—though much larger than British Columbia or Australia—is not so dissimilar to these two carbon-taxing regions. With a diverse mix of both high-carbon and low-carbon electricity generation capacity, average United States electric system carbon intensity falls between coal-reliant Australia and hydro-rich British Columbia. Existing United States electricity rates are closer to relatively higher Australian rates but natural gas rates closer to relatively lower British Columbia rates. Per capita energy use in the United States easily exceeds that of both British Columbia and Australia, but per capita carbon dioxide emissions and the carbon dioxide emission intensity of economic activity fall between the two other regions.

But the situations quickly begin to diverge. For example, the GHG-economic structure of the United States is relatively diverse. The United States does have concentrated emission-intensive or emission-linked industries (such as coal fired power generation or oil refining) that would face steep costs from a carbon price, but its economy-wide emissions are not dominated by these sources as they are in Australia. For example, about 5,500 reporting facilities in the United States meet the Australian annual 25,000 ton GHG emission threshold; to attain 60% coverage of United States GHG emissions by focusing on final fuel consumers, as achieved by the top-350 emitter

industry-focused carbon tax scheme in Australia, would require coverage closer to 5,000 facilities.[24]

One particularly exceptional characteristic of the United States energy and emission profile is its transport sector: Americans drive significantly more than those in British Columbia[25] and Australia but existing gasoline prices are significantly lower. So while overall household expenditure on gasoline may be similar across all three regions, a price on carbon would raise annual costs to American drivers by both a higher absolute level and a higher relative proportion of volumetric price. In short, it would be more noticeable.

Another important consideration for the United States is its regional diversity—a potentially key design barrier for any sort of carbon price. Given its large size, the average United States energy-economic characteristics described above are actually the result of significant regional heterogeneity.[26] It would be important then to also consider the geographic in addition to the socioeconomic distributional effects of pricing carbon and recycling that revenue in the United States. For example, unlike in British Columbia, a straight carbon tax in the United States would result in customers in states with highly coal-dependent electricity generation portfolios being impacted more than residents in less carbon-intensive states.[27]

DISCUSSION

The British Columbia and Australia cases highlight key carbon tax design and implementation issues. These choices and experiences are explored below.

What is the goal of the revenue-neutral carbon tax?

The British Columbian and Australian governments both described their carbon taxes in terms of reducing GHG emissions within their economies so as to help mitigate anthropogenic climate change.[28] Neither government expected that the carbon tax alone would be sufficient to achieve various GHG emission-reduction or technology development goals and so presented the carbon tax alongside other programs and measures. Neither policy explicitly determined prior to implementation how the carbon tax would be evaluated or if it would be adjusted based on its impact or lack thereof on GHG-emitting behavior.

A different option for framing the goals of a carbon tax—not explicitly adopted by British Columbia or Australia—would be in terms of fairness, competition, and efficiency. Namely, because current markets generally do not price the potentially negative impacts of GHG emissions, emission-intensive activities are privileged relative to non-intensive options; this distorts technology development, capital deployment, and fuel choice or other behaviors. Applying a tax to carbon to internalize this distortion could therefore be framed as one step towards "level the playing field" for the supply and demand of energy. Alongside reform of other distortionary energy taxes, subsidies, and mandates, the explicit goal of pricing carbon would then be to achieve fairer competition and efficiency in the energy market.[29] Such a "means-based" (i.e. market function) rather than "ends-based" (i.e. aggregate emissions reduction or climate change mitigation) framing would also have the advantage of being easier to directly evaluate.[30]

How are carbon tax revenues returned to the economy?

A revenue-neutral carbon tax directly returns all tax receipts to the economy, though this return of revenue is redistributive by nature; the carbon price signal faced by GHG emitters is therefore independent of any compensation received, even if net emitter costs from the carbon tax are near zero. Drawing from the British Columbia and Australia cases, revenue recipients can be divided into the following general categories:

(1) Individuals (further stratified by income level, with additional special classes including low income, vulnerable, or particularly emission-intensive groups), and;

(2) Businesses (with divisions for small businesses, export-oriented or trade-vulnerable sectors, or particularly emission-intensive sectors).

A revenue-recycling policy could arguably identify any number of these categories to receive a portion of total revenue benefits; as such, this "outflow" element of policy design is subject to stakeholder capture just as the tax incidence itself is on the "intake" side of the policy.

A basic approach to revenue distribution, illustrated in British Columbia, is to apply a simple benefit scheme to both businesses and individuals, but to attempt to correct for the regressive nature of a carbon tax on the individual side by calibrating benefits to the average share of income impacted by the carbon tax for different tax brackets, with further special benefits for particularly impacted individuals.[31] Somewhat surprisingly, however, British Columbia was largely able to avoid similarly segregating revenue benefits to business recipients.

Australia, on the other hand, while adopting a similar benefit scheme for individuals, has chosen to also make business benefits extremely targeted on export-oriented or emission intensive sectors. Furthermore, it has supplemented business benefits through government-managed spending programs to the extent that the policy may not truly be considered revenue neutral. In addition to these demographic and sectoral design considerations, were the United States to adopt a similar simple revenue-neutral carbon tax, the regional distribution of tax or dividend beneficiaries might also have to be considered given heterogeneity in regional energy system carbon intensity.

Apart from the question of who receives how much revenue benefit, there is the issue of the benefit's form. The revenue benefit's form is important in determining a government's control over revenue distributions over time as well as stakeholder support or political feasibility of the overall policy. For example, British Columbia has chosen to recycle most carbon tax revenues through reductions in personal income or general business tax rates. Particularly impacted low-income or emission-intensive households are further compensated by tax credits or the proverbial "check in the mail" akin to the State of Alaska's mineral royalty "Permanent Fund Dividends" paid annually in an equal proportion to each resident.

Direct "check in the mail" payments to individuals can be a politically appealing choice because of the high degree of salience and accountability it provides regarding the revenue-neutrality of the carbon tax. Such flat dividend payments, however, can potentially become vehicles for significantly progressive wealth redistribution: high income, high consumption households who contribute more payments under a carbon tax would likely be refunded far less than their total tax payments under a flat dividend, even if such individuals adopt strong carbon emission-mitigating choices. Similarly, a flat dividend under a very steep carbon tax could become a significant new entitlement to low income households.[32] This distribution represents both a significant political and policy challenge.

In contrast, tax offsets have been chosen to distribute the bulk of revenue benefits to individuals for both the British Columbia and Australia cases. The British Columbia "tax-shift" choice, in particular, can be seen as using a carbon tax to "fund" a desired tax cut on an existing distortionary tax such as a payroll, personal income, or corporate taxes (i.e., taxes on working or earning profits—neither of which are activities that a government likely wishes to discourage through taxation but does anyway because of funding needs and historical precedent).[33] More specifically, the use of corporate tax breaks can be an appealing option to encourage business buy-in for a revenue neutral carbon tax, but begins to create the hazard of regulatory capture as demonstrated very clearly in the Australia case. To this end, it is worth noting that the British Columbia "tax-shift" was designed and enacted by the provincial Ministry of Finance rather than an environmental or energy agency.

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In addition to affecting political feasibility, the form of benefit distribution can also have important operational implications.[34] One substantial operational concern is balancing the need for true revenue neutrality with a desire to ensure fiscal health. The British Columbia experience illustrates this tension:

(1) The revenue-recycling benefit mechanism is generally set in advance as part of an implicit contract that emphasizes predictability in what is otherwise a novel taxation system; this can make it difficult or legally impossible to update if problems arise during implementation.

(2) Revenue expectations from a carbon tax are based on estimates of future fuel consumption or GHG emissions and so are uncertain; likewise, non-discrete revenue benefit measures such as general tax rate reductions depend on estimates of future economic activity in particular sectors and are also uncertain. Net accounts of the carbon tax system, which might be politically significant, are therefore shifting at both ends.

(3) Similarly, the net distributional impacts of a revenue-neutral carbon tax are subject to numerous additional layers of uncertainty. For example, one sector of the economy may face unanticipated high costs from a carbon tax (such as an external need to switch fuels) while another sector may benefit from an unexpected windfall from revenue-recycling tax breaks.

As described above, the result of such operational uncertainty in British Columbia has meant that the "carbon-shift" has actually been revenue-negative for the government and the distribution of revenue benefits between individuals and business has diverged

from initial expectations. Because the policy design largely tied the government's hands for the first five years of implementation, the government had to assume revenue and benefit payment risks that might have become significant. It is possible, however, that a different design might have been more robust to uncertainty without compromising social acceptance; a direct payment system with a proportional benefit amount determined by that year's estimated tax revenue, for example, would disaggregate the benefit payment risk by transferring it from the government to recipients.

Another notable aspect of the British Columbia carbon tax was its structuring in such a way that seemed to "call" for emissions growth to balance revenues with expenses, as is highlighted in the numbers below from the British Columbia Government. As a result, the British Columbia budget has become more dependent on carbon tax revenue than any jurisdiction on earth, with a forecasted 10% jump in emissions over the initial five year period being necessary to hit revenue targets, as outlined in the table below:[35]

Fiscal Year	Carbon Tax Rate	Est. Carbon Tax Revenues	Inferred Carbon Tax Base	Emissions Growth Requirement
2010/11	CAD $20/t CO2e	CAD $741 million	37.1 million tons CO2e/y	
2011/12	CAD $25/t CO2e	CAD $960 million	38.4 million tons CO2e/y	3.5%
2012/13	CAD $30/t CO2e	CAD $1,166 million	38.9 million tons CO2e/y	1.3%
2013/14	CAD $30/t CO2e	CAD $1,232 million	41.1 million tons CO2e/y	5.7%

Source: Table by authors; data compiled from BC MOF Budgets and author calculations.

Of course, these are significant revenues, especially in the context of British Columbia's total budget of just CAD $43 Billion. One problem with the carbon tax is that having already committed this future revenue stream to finance the corporate and personal income tax rate cuts that it enacted, British Columbia is potentially in a difficult fiscal position of not really wanting carbon dioxide to fall too much in the near future, seemingly defeating the emissions reduction purpose of the tax in the first place.[36]

How is the integrity of the tax and revenue-returning measures ensured?

Once implemented, a revenue-neutral carbon tax is potentially subject to both new exemptions on the taxation side and appropriation of revenues by stakeholders or the government itself on the benefits side. Potential adjustments range from small "tweaking" in response to unanticipated tax burdens that befall certain stakeholders to an outright policy overhaul given a changed economic or political environment. In British Columbia, for example, a "Northern and rural homeowner benefit" payment was established in the third year of policy implementation to compensate this energy-intensive stakeholder group for the higher cost they faced from home heating through the carbon tax. This new benefit amounted to 2.6% of collected third year carbon tax revenue and 7.8% of fourth year tax revenue.

These adjustments were enacted through the benefit payout rather than tax intake side—the tax base remained relatively stable. This is in stark contrast to the Australian case where targeted tax base exemptions are central to policy design from the very outset. And though the British Columbia carbon tax appears to enjoy generally solid public support,[37] anecdotally, popular calls for exemptions or even a redirection of revenues towards "green" government spending do remain present, especially in urban areas.

Moreover, it is unclear if this latest target relief grant to the provincial greenhouse agricultural industry, described above, represents a new approach by the Ministry of Finance toward implementation of the policy and if it will now be successfully followed by further stakeholder requests.

Designing a Lockbox—The Alaska Permanent Fund Dividend

The question of how to create a "lockbox" around the revenues of any new carbon tax, especially in times of government deficits and across political or economic cycles, is central in assuring the key principle of revenue-neutrality. Returning to United States precedent and the Alaska Permanent Fund Dividend, first paid out to residents in 1982 and uninterrupted through today, it is interesting to note that the constitutional amendment creating the fund specifically granted the state legislature broad flexibility in determining how fund earnings could be spent [Austermann 1999]. The dividend, however, has nevertheless been consistently and successfully distributed since.

The most significant challenge to the dividend came in 1999 when oil prices (and fund principal deposits) were very low; a governor's proposal to redirect some fund earnings towards general budgetary spending was rejected by popular vote by an overwhelming margin. The dividend continued despite persistent government account deficits in Alaska and it has been suggested that officials today are so anathema to be seen as interfering with the annual dividend that they hesitate to even commission research studies on its operation or effect [Goldsmith 2002]. The only "lockbox" for this case then is virtual; historical precedent, alongside a once non-existent but now significant public constituency (supported by the dividend policy's extreme simplicity and visibility), has preserved continuity.

It is also interesting to note that, unlike the "shared" tax breaks seen in the British Columbia carbon tax case, business entities in Alaska are not directly involved at all on the receiving side of the permanent fund; dividends are returned only to individuals, and to every individual. The simplicity and transparency of this has likely contributed to the robustness of the Alaska Permanent Fund Dividend over time.

Though this model is robust it is not without critique. In particular, many point out that a flat dividend can become a vehicle for cross-subsidy across income and consumption groups, especially as payouts rise beyond compensation for any incurred direct costs.

Designing a Lockbox—Using a Carbon Tax to Eliminate an Existing Tax

Another sensible approach to dealing with revenues while ensuring integrity is to explicitly substitute new revenues for an existing revenue stream. Such a 1-for-1 trade would be a true "tax swap", completely eliminating—and not just marginally reducing—an existing tax.

To illustrate how this could work we can look at the example of a carbon tax in the United States. The easily measurable carbon dioxide emissions of major energy producers in the United States have been roughly 5 billion metric tons in recent years [US EPA 2012, see below]. Therefore, a carbon tax of USD $30 per ton would yield about USD $150 billion in government revenues. Unlike many other federal taxes, however, which grow alongside broader economic activity, carbon tax revenues could be expected to gradually fall over time as the economy becomes less carbon intensive. So what does USD $150 billion buy from federal government revenues today?

Curent Federal Tax	Typical Revenues
Gasoline	$25 billion
Diesel	$8–9 billion
Other Manufacturer / Fuels	$2–3 billion
Air Travel / Freight + Phone	$11–12 billion
Highway Trust Fund Supplement	$8 billion
Capital Gains	$40–140 billion
Capital Gains, income <100k/200k	$10–15 billion
Estate and Gift	$20–30 billion
AMT for individuals	$5–25 billion

Excise and consumption taxes are one potential target and they are similar in form, though narrower, than a carbon tax. In particular, displacing the federal gasoline and diesel taxes would significantly offset a major consumer and small business pain point. Fuel and transport tax eliminations (~USD $55 billion) could be paired with elimination of capital gains taxes for medium income households, elimination of the estate and gift taxes, and elimination of the AMT for individuals. Or, instead, the capital gains tax could be completely eliminated. As one reference point, the Romney tax cuts would have "cost" about USD $215 billion (in static terms). With such a tax-swap model, there are a wide variety of potential tax elimination options that might be both politically salient and reasonably transparent enough to mitigate the risk of future tampering.

Where is the Tax Applied?

Setting the ideal carbon tax base is a tradeoff between making coverage as broad as possible (to maximize emission mitigation potential, flexibility, and fairness across the economy) and narrowing the number of directly liable entities or events (to minimize administrative costs, policy complexity, and gaming). The varied British Columbia and Australian approaches to both aspects illustrate that potential strategies are the result of both energy-economic structure and political choice.

Namely, British Columbia chose to apply its tax largely upstream and let it filter broadly through the economy while Australia is focusing more downstream at the

major consumer level and at the point of consumption. Australia's approach allows it to better exempt certain protected sectors like personal transport. Moreover, its entity-based approach—seen more commonly in carbon cap-and-trade schemes[38]—sets Australia up for its intended conversion to an internationally-linked cap-and-trade after 2015. But whereas Australia's downstream carbon tax covers just 60% of the country's total GHG emissions (and must include fugitive emissions to achieve even that), British Columbia's upstream energy-focused tax can ultimately operate more efficiently with its 70–75% coverage of total GHG emissions. British Columbia also notes that its volumetric approach was able to use existing fuel tax administration infrastructure, allowing for simpler implementation.

For comparison, in the United States, the carbon dioxide emissions from fossil fuel combustion alone are about 79% of total greenhouse gas emissions.[39] An upstream and midstream-focused energy-only carbon tax with incidence only on oil refiners, coal producers, and natural gas processors could realistically be expected to cover about 70–75% of total United States greenhouse gas emissions from under just 2,500 total liable entities.[40]

Border Considerations

Many proposed carbon pricing policy designs have struggled with the question of border adjustments—that is, how to penalize imports produced in out-of-jurisdiction regions that do not face a similar carbon price, how to compensate domestic exporters for their carbon tax payments, or how to avoid leakage of economic activities across jurisdictional borders. Politically, such competitiveness-related concerns have even been cited as a primary justification for legislative inaction on carbon pricing. It is interesting to note then that in British Columbia's pioneering revenue-neutral carbon tax efforts, the issue of border adjustments was deemed not to be a showstopper: relatively simple provisions were enacted to address the first-order issue of fuel imports and exports, while the second-order issue of embedded emissions within traded products or services was essentially left aside to be evaluated over time as actual (and not simply anticipated) business impacts were observed.[41]

And while the pragmatic spirit of British Columbia's approach is imitable, it may not be sufficient for trade-heavy countries such as the United States. For example, as described above, emission-intensive trade-exposed industries such as refineries, chemicals, metals, cement, paper, or even agriculture in countries like Australia (or the United States) could reasonably be expected to face negative economic impacts from a relative drop in domestic and international competitiveness against untaxed foreign embedded emissions. For its part, Australia is planning to devote significant tax revenues towards compensating such industries domestically in the early years of its carbon tax with the hope that enough of its trade partners will adopt similar or even harmonized carbon pricing policies into the future to mitigate the problem. Presumably, over time, such border adjustments might be rendered unnecessary as trade partners adopt their own commensurate carbon pricing mechanisms.[42]

The Politics of a Carbon Tax

In addition to the policy aspects of carbon pricing, experiences abroad also have important lessons about the politics of carbon pricing.

In British Columbia, the major left-wing party were very concerned about the effects on working class incomes of such a tax, causing them to initially oppose it. Despite the opposition of these traditional left-wing proponents of environmental regulations, however, the centrist Liberal party achieved re-election after its advocacy of the tax.[43]

Perhaps most interestingly, the carbon tax proposal was designed by the Liberals explicitly to pull environmentally-minded voters from more left-wing parties to the Liberal party, effectively splitting those parties.[44] One observer commented that "The New Democrats, led by Carol James, fiercely opposed the carbon tax, arguing that it especially hurt rural residents. But the party's opposition to the tax cost them the support of almost all environmental organizations, which sided with Campbell solely on the issue," while the nonpartisan Conservation Council launched a campaign telling voters to choose "anybody but James."[45]

Even before the results came in, some commentators began to speculate on the likely electoral effect of the tax. For the *Globe and Mail*, Dirk Meissner reported on suggestions that the NDP's stance on the carbon tax might hurt it on election day. In particular, he emphasized the views of Harris Decima's Senior VP Jeff Walker who suggested that "traditional soft environment voters in British Columbia who usually go into every election vowing to vote Green, but end up going with the NDP are now considering staying Green to punish the NDP."[46]

Yet despite carbon pricing's reasonably favorable reception by the British Columbia public and the intriguing politics outlined above, by 2011, "The three major provincial parties in Ontario—the governing Liberals, the Conservatives and the NDP—[had] explicitly vowed not to introduce a carbon tax in that province if they win the upcoming provincial election."[47] Stéphane Dion, of the Liberals, who ran on a similar "Green Shift" in taxation at the national level in 2008, was resoundingly defeated after being opposed by both Canada's conservatives, under Stephen Harper and the liberal NDP, both of whom criticized his carbon tax proposal, modeled after British Columbia's.[48] Looking at the British Columbia case, the evidence for the political feasibility of a revenue-neutral carbon tax could be best described as mixed. It seems most likely to occur in the context of a broader overall tax reform, as occurred in Australia and British Columbia.

Looking at the British Columbia case, the evidence for the political feasibility of a revenue-neutral carbon tax could be best described as mixed.

CONCLUSION

In this paper we have described the real-world design choices and policy experience to date of the most significant major new global forays into revenue-neutral carbon taxes—that is, those carbon taxes that return substantially all of their revenue collected through tax benefits and direct payments to individuals. Interestingly, one of the few things shared between the British Columbian and Australian approaches is that they both enacted their carbon taxes in the context of a comprehensive tax reform process. Policy details such as tax incidence, sectoral coverage, GHG coverage, business revenue benefits, and the schedule of policy implementation are actually all quite different. And time will tell how public and political support for Australian scheme fares in comparison to the British Columbian experience over the past five years.

For example, it is highly salient that the only largely successful revenue-neutral carbon tax enacted worldwide—in British Columbia—was one that essentially exempted the electricity sector. We argued that the reasons for such divergent approaches are due in part to political choices, but they are also grounded in the quite different energy and economic systems of the two regions. One lesson we might draw then is that the path of even something as seemingly straightforward as a revenue-neutral carbon tax—from economic theory, through the political process, to real-world implementation—is in fact long and winding.[49]

The path of even something as seemingly straightforward as a revenue-neutral carbon tax—from economic theory, through the political process, to real-world implementation—is in fact long and winding.

Moreover, having considered the British Columbia and Australian efforts, it is clear to us that a revenue-neutral carbon tax cannot be considered simply from the perspective of climate change mitigation. Because a carbon tax is ultimately an energy tax (albeit a differentiated one), it, like any fundamental energy system reform, should instead be framed more broadly: by how it affects a country's *environment*, by how it affects *energy security*, and by how it affects the broader *economy*.

The first measure—the *environment*—is the natural domain of a revenue-neutral carbon tax and so one could expect it to score well in that regard. As we have noted above, however, many now expect that a price instrument alone may not be sufficient (or efficient) to meet climate change mitigation goals. For example, the United States and other countries continue to suffer from a persistent underinvestment by both public and private sectors in early-stage, long-term energy R&D. Ultimately, significant climate goals require not just marginal shifting but also groundbreaking new technologies, and there are good reasons why a carbon price alone would not support

enough R&D to deliver these. At the same time, a revenue-neutral carbon tax must also explicitly demonstrate how it can help improve not just global but also the local environmental conditions that remain top-of-mind for average citizens.

The *energy security* impacts of a revenue-neutral carbon tax remain particularly unexamined. Neither British Columbia nor Australia explicitly invoked energy security in their program formulation—both Canada and Australia have very low energy import dependency—but it would be a key consideration in the United States. A revenue-neutral carbon tax would affect national energy security on both the consumption and domestic production sides of the energy equation, and in terms of both volume and form. Because of its pervasiveness, a carbon tax could very well become, *de facto*, the most significant energy security policy in an energy import-dependent market economy—positive or negative. We leave this important issue to further consideration.

Finally, the *economy*. A revenue-neutral carbon tax's impact on a region's economy is likely to be the main debate both politically and in terms of policy design. This was certainly the case in British Columbia and Australia and would be for the United States as well. But while much of that discussion turns on projected impacts to particular industrial sectors, household budgets, employment, or even fiscal health, to consider a carbon tax is also an ideal time to consider the *existing* web of taxes and subsidies that our governments enact throughout the energy system today.

Just as in other countries, the modern United States energy policy offers an often mystifying web of production tax credits, investment tax credits, depletion allowances, domestic manufacturing tax deductions, accelerated depreciation schedules, loan guarantees, and portfolio standards. Built up piecemeal, over time and across industries, these affect costs and prices in both directions for most every form of energy such that it becomes unclear just what market distortions do or do not exist for a revenue-neutral carbon tax to try to fix. Whatever the theoretical merits of a revenue-neutral carbon tax in improving energy market function, to add one on top of our current patchwork of energy market manipulations would clearly add to this complexity. For this reason, rationalizing the United States energy market by creating a level playing field and eliminating energy subsidies should be a necessary part of any carbon tax policy discussion. Ultimately, when the negotiation begins over America's energy and fiscal futures, every chip needs to be on the table.

ANNEX

Carbon tax shares of fuel tax and total fuel price for gasoline and diesel in the British Columbia "Translink" (Vancouver-area) motor fuel taxation region, for both constant hypothetical fuel prices and actual historical provincial fuel price averages over the carbon tax policy implementation period:

[Note: The Translink service area in 2010 was ~2.3 million people, approximately half of the total British Columbia population; calculations for other British Columbia regions available on request]

BC – Translink Area Gasoline for personal vehicles	*hypothetical fuel price, cents per liter*	Jan. 1 2008	July 1 2008	July 1 2009	Jan. 1 2010	July 1 2010	July 1 2011	April 1 2012	(expected) July 1 2012	(expected) April 1 2013	(expected) July 1 2013
Federal Excise Tax		10	10	10	10	10	10	10	10	10	10
Provincial Excise Tax		8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
Local Excise Tax		12	12	12	15	15	15	17	17	17	17
Carbon Tax		0	2.34	3.51	3.33	4.45	5.56	5.56	6.67	6.67	6.67
total excise tax		***30.5***	***32.84***	***34.01***	***36.83***	***37.95***	***39.06***	***41.06***	***42.17***	***42.17***	***42.17***
GST		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Provincial element of HST		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PST		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
total sales tax		***5%***	***5%***	***5%***	***5%***	***5%***	***5%***	***5%***	***5%***	***5%***	***5%***
Total tax on fuel @:	*50*	34.53	36.98	38.21	41.17	42.35	43.51	45.61	46.78	46.78	46.78
Total fuel + tax bill @:	*50*	84.53	86.98	88.21	91.17	92.35	93.51	95.61	96.78	96.78	96.78
Tax percentage of fuel bill @:	*50*	40.85%	42.52%	43.32%	45.16%	45.86%	46.53%	47.71%	48.34%	48.34%	48.34%
Carbon tax percentage of total tax on fuel @:	*50*	*0.00%*	*6.33%*	*9.19%*	*8.09%*	*10.51%*	*12.78%*	*12.19%*	*14.26%*	*14.26%*	*14.26%*
Carbon tax percentage of fuel bill @:	*50*	*0.00%*	*2.69%*	*3.98%*	*3.65%*	*4.82%*	*5.95%*	*5.82%*	*6.89%*	*6.89%*	*6.89%*
Total tax on fuel @:	*75*	35.78	38.23	39.46	42.42	43.60	44.76	46.86	48.03	48.03	48.03
Total fuel + tax bill @:	*75*	110.78	113.23	114.46	117.42	118.60	119.76	121.86	123.03	123.03	123.03
Tax percentage of fuel bill @:	*75*	32.30%	33.76%	34.48%	36.13%	36.76%	37.38%	38.46%	39.04%	39.04%	39.04%
Carbon tax percentage of total tax on fuel @:	*75*	*0.00%*	*6.12%*	*8.89%*	*7.85%*	*10.21%*	*12.42%*	*11.86%*	*13.89%*	*13.89%*	*13.89%*
Carbon tax percentage of fuel bill @:	*75*	*0.00%*	*2.07%*	*3.07%*	*2.84%*	*3.75%*	*4.64%*	*4.56%*	*5.42%*	*5.42%*	*5.42%*
Total tax on fuel @:	*100*	37.03	39.48	40.71	43.67	44.85	46.01	48.11	49.28	49.28	49.28
Total fuel + tax bill @:	*100*	137.03	139.48	140.71	143.67	144.85	146.01	148.11	149.28	149.28	149.28
Tax percentage of fuel bill @:	*100*	27.02%	28.31%	28.93%	30.40%	30.96%	31.51%	32.48%	33.01%	33.01%	33.01%
Carbon tax percentage of total tax on fuel @:	*100*	*0.00%*	*5.93%*	*8.62%*	*7.63%*	*9.92%*	*12.08%*	*11.56%*	*13.54%*	*13.54%*	*13.54%*
Carbon tax percentage of fuel bill @:	*100*	*0.00%*	*1.68%*	*2.49%*	*2.32%*	*3.07%*	*3.81%*	*3.75%*	*4.47%*	*4.47%*	*4.47%*
Actual average fuel price less taxes for period beginning:		92.95	78.12	75.17	77.78	87.53	95.79	102.20			
Total tax on fuel @:		36.67	38.39	39.47	42.56	44.22	45.80	48.22			
Total fuel + tax bill @:		129.63	116.51	114.64	120.34	131.75	141.59	150.42			
Tax percentage of fuel bill @:		28.29%	32.95%	34.43%	35.37%	33.57%	32.35%	32.06%			
Carbon tax percentage of total tax on fuel @:		0.00%	6.10%	8.89%	7.82%	10.06%	12.14%	11.53%			
Carbon tax percentage of fuel bill @:		0.00%	2.01%	3.06%	2.77%	3.38%	3.93%	3.70%			

BC – Translink Area Diesel for personal vehicles	*hypothetical fuel price, cents per liter*	Jan. 1 2008	July 1 2008	July 1 2009	Jan. 1 2010	July 1 2010	July 1 2011	April 1 2012	(expected) July 1 2012	(expected) April 1 2013	(expected) July 1 2013
Federal Excise Tax		4	4	4	4	4	4	4	4	4	4
Provincial Excise Tax		9	9	9	9	9	9	9	9	9	9
Local Excise Tax		12	12	12	15	15	15	17	17	17	17
Carbon Tax		0	2.69	4.04	3.84	5.11	6.39	7.67	7.67	7.67	7.67
total excise tax		***25***	***27.69***	***29.04***	***31.84***	***33.11***	***34.39***	***37.67***	***37.67***	***37.67***	***37.67***
GST		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Provincial element of HST		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PST		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
total sales tax		***5%***	***5%***	***5%***	***5%***	***5%***	***5%***	***5%***	***5%***	***5%***	***5%***
Total tax on fuel @:	*50*	28.75	31.57	32.99	35.93	37.27	38.61	42.05	42.05	42.05	42.05
Total fuel + tax bill @:	*50*	78.75	81.57	82.99	85.93	87.27	88.61	92.05	92.05	92.05	92.05
Tax percentage of fuel bill @:	*50*	36.51%	38.71%	39.75%	41.81%	42.70%	43.57%	45.68%	45.68%	45.68%	45.68%
Carbon tax percentage of total tax on fuel @:	*50*	*0.00%*	*8.52%*	*12.25%*	*10.69%*	*13.71%*	*16.55%*	*18.24%*	*18.24%*	*18.24%*	*18.24%*
Carbon tax percentage of fuel bill @:	*50*	*0.00%*	*3.30%*	*4.87%*	*4.47%*	*5.86%*	*7.21%*	*8.33%*	*8.33%*	*8.33%*	*8.33%*
Total tax on fuel @:	*75*	30.00	32.82	34.24	37.18	38.52	39.86	43.30	43.30	43.30	43.30
Total fuel + tax bill @:	*75*	105.00	107.82	109.24	112.18	113.52	114.86	118.30	118.30	118.30	118.30
Tax percentage of fuel bill @:	*75*	28.57%	30.44%	31.35%	33.14%	33.93%	34.70%	36.60%	36.60%	36.60%	36.60%
Carbon tax percentage of total tax on fuel @:	*75*	*0.00%*	*8.20%*	*11.80%*	*10.33%*	*13.27%*	*16.03%*	*17.71%*	*17.71%*	*17.71%*	*17.71%*
Carbon tax percentage of fuel bill @:	*75*	*0.00%*	*2.49%*	*3.70%*	*3.42%*	*4.50%*	*5.56%*	*6.48%*	*6.48%*	*6.48%*	*6.48%*
Total tax on fuel @:	*100*	31.25	34.07	35.49	38.43	39.77	41.11	44.55	44.55	44.55	44.55
Total fuel + tax bill @:	*100*	131.25	134.07	135.49	138.43	139.77	141.11	144.55	144.55	144.55	144.55
Tax percentage of fuel bill @:	*100*	23.81%	25.41%	26.19%	27.76%	28.45%	29.13%	30.82%	30.82%	30.82%	30.82%
Carbon tax percentage of total tax on fuel @:	*100*	*0.00%*	*7.89%*	*11.38%*	*9.99%*	*12.85%*	*15.54%*	*17.22%*	*17.22%*	*17.22%*	*17.22%*
Carbon tax percentage of fuel bill @:	*100*	*0.00%*	*2.01%*	*2.98%*	*2.77%*	*3.66%*	*4.53%*	*5.31%*	*5.31%*	*5.31%*	*5.31%*
Actual average fuel price less taxes for period beginning:		98.57	77.74	65.82	71.01	83.21	95.48	105.63			
Total tax on fuel @:		31.18	32.96	33.78	36.98	38.93	40.88	44.84			
Total fuel + tax bill @:		129.75	110.70	99.61	107.99	122.13	136.36	150.47			
Tax percentage of fuel bill @:		24.03%	29.78%	33.92%	34.24%	31.87%	29.98%	29.80%			
Carbon tax percentage of total tax on fuel @:		0.00%	8.16%	11.96%	10.38%	13.13%	15.63%	17.11%			
Carbon tax percentage of fuel bill @:		0.00%	2.43%	4.06%	3.56%	4.18%	4.69%	5.10%			

Notes

1 Moreover, the carbon tax policy actually stipulates a salary penalty for the minister of finance if annual carbon revenues exceed payouts.

2 This results in an annual natural gas bill increase for home and water heating of about CAD $120 for the typical British Columbia household according to government estimates.

3 Marc Lee, February 2012 Sierra Club Study.

4 Canada National Inventory Report to the UNFCCC 2011.

5 Sellers who pay a security to the government equal the tax amount are reimbursed when they collect final consumer tax payments at the retail level. The natural gas carbon tax is collected at the retail level.

6 The carbon tax liability is considered at the point of sale/purchase (as opposed to production) or, where applicable, following self-consumption. This makes border adjustments for fuels relatively transparent: fuels imported from outside the province are subject to the carbon tax when sold for use inside the province; similarly, fuels produced within the province for consumption outside the province are not taxed as part of that transaction (or taxes paid can be refunded).

7 No such linkage program is in effect as of 2012.

8 Therefore, in British Columbia, much of government guidance on how individuals can reduce their carbon tax burden (and therefore GHG emissions) has focused on efforts such as driving less, switching to a more fuel-efficient vehicle, improving home insulation, or upgrading gas furnaces [BC MOF Budget 2008], rather than the discussions on improving lighting efficiency or reducing home appliance use that figure prominently in the U.S. or other regions with typically carbon-intensive power systems.

9 Oil refineries are another major source of industrial GHG emissions that may face particularly large burdens from a carbon tax and therefore demand special policy attention. British Columbia, however, has only two relatively small oil refineries, with a combined capacity of about 65,000 barrels/day representing about 12% of the province's total carbon dioxide emissions (California, for comparison, has about 20 refineries with a combined capacity that exceeds 2 million barrels/day) [refinery capacity date from Oil and Gas Journal 2009].

10 BC MOF 2011.

11 This "Carve out" creep is notable, because of the lack of carve-outs in the initial proposal, and because the lack of a greenhouse carve-out was specifically mentioned by BC's finance minister at the time (source: conversation with the minister). This shows the political difficulty of maintaining any carbon tax system without favoritism over time.

12 It is also notable that, post the carbon tax, British Columbia has the lowest income tax in Canada for those making under CAD 120,000, corporate taxes that are the lowest in the G7, and small-business taxes that are the lowest in Canada ["Tax Cuts Funded by the Carbon Tax" BC MOF 2012].

13 British Columbia implemented such a HST system in July 2010, but ultimately, despite strong support from the provincial government, the HST was defeated in a 2011 ballot referendum and efforts are underway to return to the previous provincial sales tax system by April 2013.

14 British Columbia's experiment with the HST did not directly influence motor fuel or home energy use prices; both categories were exempted by both tax systems, though this is not true elsewhere in Canada.

15 Specifically, the Vancouver "Translink" region.

16 See the annex for a detailed accounting of the carbon tax shares for gasoline and diesel in the Vancouver, British Columbia motor fuel taxation regions for both constant hypothetical fuel prices and actual historical provincial fuel price averages over the policy implementation period.

17 Known as the "Australia Future Tax System Review", which began in 2008. One of the more notable and controversial parallel tax reforms has been the simultaneous introduction of a "minerals resources rent tax" which uses revenues from a new windfall tax on iron and coal miners to reduce corporate and small business tax rates and invest in regional infrastructure.

18 Including carbon dioxide, methane, nitrous oxide, and perfluorocarbon emissions.

19 Major initiatives designed to do this include a "Jobs and Competitiveness Program" to assist industry (largely steel and aluminum producers); an "Energy Security Fund" to allocate free carbon units and cash payments to coal-fired power generators who publish "Clean Energy Investment Plans", also used to negotiate the closure of (i.e. buy out) about 2GW of the most inefficient coal facilities by 2020; and a "Clean Energy Finance Corporation" to help fund renewable electricity projects. Other related spending programs include: a "Coal Sector Jobs Package" focused on mines impacted by the reduction in projected coal use; a sectorally-targeted "Clean Technology Program" to encourage low carbon manufacturing and technology innovation; a "Steel Transformation Plan"; and a land use and "Carbon Farming Initiative" offset scheme.

20 BC and Australian government estimates.

21 Australian government calculations. Originally, the Australian government estimated that 500 businesses would exceed the 25,000 ton per year emission threshold; of those, approximately 130 were primarily in the waste sector, 100 were in mining, 60 were electricity generators, 40 were natural gas retailers, and 50 operated in other fossil fuel-intensive sectors.

22 It is interesting to note that the commercial sector in Australia receives no targeted benefit as a result of the carbon tax. In British Columbia, the commercial sector (along with industries) received general corporate tax rate breaks and small business tax breaks as part of the revenue-neutral carbon tax program. In Australia, even if commercial-sector entities are generally not directly taxed for their own emissions, they will still face higher electricity costs, which is typically the majority of their energy use. It can be argued that this demonstrates the relative strength of major industries in the Australian carbon tax development process.

23 The American Enterprise Institute has since 2011 held a series of ad-hoc left-right workshops around a revenue-neutral carbon tax. One held in July 2012 and titled "Price Carbon Campaign / Lame Duck Initiative: A Carbon Pollution Tax in Fiscal and Tax Reform" prompted vigorous discussion within the conservative think tank community. See "Left-right climate group quietly weighing proposals for carbon tax" (July 12 2012) from The Hill's E2-Wire (online) and a response from the Competitive Enterprise Institute's Marlo Lewis, "AEI Hosts Fifth Secret Meeting to Promote Carbon Tax" (July 11 2012).

24 see EPA facility level GHG reporting data, 2012.

25 (which is dominated by low average vehicle-mile per year urban residents in its primate city Vancouver; see region summary statistics compiled from respective government sources).

26 For example, just three states (Texas, Louisiana, and California) represent over half of United States refining capacity. Wyoming alone produces 40% of US coal. Hydroelectric power accounts for 75% of Washington state electricity supply, while coal supplies 90% of electric power in Ohio. Because of fuel price disparity, infrastructure, and policy differences, average retail electricity prices are 17.4 cents per KwH in Connecticut but just 6.7 cents in Kentucky. South Carolina per capita expenditures on gasoline are nearly twice that of New York. Per capita energy consumption in California is half that of Texas [all figures US EIA, 2010 data].

27 Recent studies have attempted to quantify the extend and nature of regional heterogeneity in impacts on household incomes from a flat revenue-neutral carbon tax. See, for example, CBO (July 2009) "Two Recent Studies of Regional

Differences in the Effects of Policies That Would Price Carbon Dioxide Emissions" letter from Douglas W. Elmendorf to James Inhofe. Interestingly, they find that though regional disparities exist, the impact is likely less then anticipated.

28 Australia also emphasized the role of the carbon tax in encouraging a broader shift toward a "clean" economy with potential growth opportunities from the adoption of new technologies.

29 The 2012 Joint Committee on Taxation valued total United States energy sector "tax expenditures" at about $39.3 billion over the 5 years 2011–2015, or about $6 billion annually ["Estimates Of Federal Tax Expenditures For Fiscal Years 2011–2015" January 17 2012.] Note that estimates of federal government subsidies or tax preferences in the energy industry vary widely, in part because of different ways to conceptualize what should count as a subsidy or tax preference; a 2011 review by the US DOE's EIA, for example, pegged the *annual* cost of energy sector tax expenditures much higher, at $16.3 billion, and included a more expansive valuation of "direct federal financial interventions and subsidies" at $37.2 billion annually (up from $11.5 billion and $17.9 billion, respectively in 2007 before ARRA implementation) ["Direct Federal Financial Interventions and Subsidies in Energy in Fiscal Year 2010" July 2011].

30 Even after a few years of experience in pricing carbon, it is difficult for British Columbia to offer robust analytical support of how the carbon tax is impacting provincial emissions. A recent British Columbia government report ["Making progress on B.C.'s climate action plan" 2012] points out that provincial emissions have fallen over the carbon tax period (by 4.5% from 2007–2010) and that fuel sale declines have exceeded the national average trend, while population and GRP growth has exceeded the national average; though a host of other uncontrolled variables (weather, macroeconomic structural shifts, demographics, other tax changes, etc.) make it difficult to argue with certainty how much of that change was due to the carbon tax, this data has nonetheless helped underpin public support for the carbon tax in recent months.

31 This approach can, however, have the problem of potentially reducing some behavioral effects of the tax. Even though benefits are the same within a recipient class regardless of energy usage (which preserves the behavioral affect), it does effectively insulate entire classes that might in fact have the most potential to reduce energy consumption by shifting classes. For example, the British Columbia special tax benefit for rural or northern homeowners might still incent them to improve the energy efficiency of their homes, but it would not necessary encourage them to move to the city and reduce energy use even further as they would lose the special tax benefit in doing so.

32 For example, in the United States, a 2009 Congressional testimony from the CBO estimated that a carbon cap-and-trade program that returned permit auction revenues (similar in function to a carbon tax) as a flat divided on a per household basis would impact after-tax real household income by +1.8%, +0.7%, -0.1%, -0.6%, and -0.7% for the lowest to highest income quintiles, respectively [Congressional Budget Office (May 7 2009) Distribution of Revenues from a Cap-and-Trade Program for CO2 Emissions. Statement of Douglas W Elmendorf before the United States Senate Committee on Finance.].

33 To the extent that such existing taxes are distortionary within an economy, their displacement by a revenue-generating carbon tax can be an attractive option from a economic efficiency standpoint because it reduces deadweight loss. Aggregate macroeconomic gain achieved through such a pigouvian tax shift (under certain conditions) is referred to as a "double dividend". See Lawrence Goulder (1995) "Environmental Taxation and the Double Dividend: a reader's guide" Tax and Public Finance, 2:157–183.

34 A significant operational issue is the potential "fence-post" problem with enacting a new carbon tax: to the extent that there exists a time interval between carbon tax payment and revenue dispersal, there is a float generated on the balance of funds. In the British Columbia case, this balance remains with the treasury (mitigated by the accuracy of estimated tax withholdings) and so some taxpayers will see net-negative cash-flow on account of the carbon tax until compensated by end of year tax refunds or more frequent direct payments. The balance can be virtually flipped from the government to the taxpayer over any given time period, however, by distributing benefits in advance of and equal to anticipated tax receipts, though this incurs a temporary but persistent funding deficit to the government.

35 Aldyen Donnelly: British Columbia's carbon tax quagmire.

36 As noted above, actual British Columbia provincial emissions fell by 4.5% over 2007–2010 on reduced fuel sales.

37 Pembina Institute 2011, Duff 2008.

38 (with entity liability thresholds almost identical to those in cap and trade systems recently announced in California, South Korea, and China's Guangdong Province).

39 US EPA 2012 GHG Emission Inventory, data for 2010.

40 See, for example, the tax liability scheme outlined in Metcalf and Weisbach, 2009, "The Design of a Carbon Tax", Harvard Environmental Law Review Vol 33. Note that this discussion has dealt with tax obligation and not tax incidence—tax incidence will likely spread across each fuel's value chain according to existing market forces. A number of studies have attempted to model price impacts of carbon pricing across various economic subsectors. In the United States, see, for example, the CBO's June 2010 working paper "Input-Output Model Analysis: Pricing Carbon Dioxide Emissions", Kevin Perese.

41 This approach has not been without complaint, as witnessed by the protestations of the British Columbia cement industry, for example, as described above. One small border tax perk in British Columbia, however, has been the net positive capture of carbon tax revenues paid by tourists or other non-provincial travellers through fuel and other energy purchases which are subsequently refunded to British Columbians.

42 To that end, the Australian government fastidiously promulgates news of carbon pricing scheme adoption by trading partners on its program website. See, for example, "South Korea passes ETS legislation", May 3 2012, Australian Government Clean Energy Future website.

43 BC Voters Stand By Carbon Tax, http://www.carbontax.org/blogarchives/2009/05/13/bc-voters-stand-by-carbon-tax.

44 The Tyee.

45 British Columbia re-elects Liberals (May 12) AFP.

46 "Canadians cool on carbon tax: poll" May 10 2009, The Canadian Press.

47 Jock Finlayson, spokesman for the Business Council of B.C, in "Three years in, B.C. still on its own with carbon tax" June 30 2011, The Canadian Press.

48 The Globe and Mail. September 11 2008. "Layton Lays in Green Shift". http://www.theglobeandmail.com/news/politics/layton-lays-into-green-shift/article1061159.

49 That there is actually flexibility in the design of a revenue-neutral carbon tax may dismay supporters who see it as a relatively simple alternative to complex cap-and-trade mechanisms. This flexibility, however, is also an asset, as it means that what a revenue-neutral carbon tax can be, and what goals it can fulfill, should not be considered pre-defined. A United State revenue-neutral carbon tax, if ever implemented, may not be recognizable from the British Columbian perspective, the Australian perspective, by today's domestic carbon tax opponents—or even today's carbon tax supporters.

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Shultz-Stephenson Task Force on Energy Policy

The Hoover Institution's Shultz-Stephenson Task Force on Energy Policy addresses energy policy in the United States and its effects on our domestic and international political priorities, particularly our national security.

As a result of volatile and rising energy prices and increasing global concern about climate change, two related and compelling issues—threats to national security and adverse effects of energy usage on global climate—have emerged as key adjuncts to America's energy policy; the task force will explore these subjects in detail. The task force's goals are to gather comprehensive information on current scientific and technological developments, survey the contingent policy actions, and offer a range of prescriptive policies to address our varied energy challenges. The task force will focus on public policy at all levels, from individual to global. It will then recommend policy initiatives, large and small, that can be undertaken to the advantage of both private enterprises and governments acting individually and in concert.

For more information about this Hoover Institution Task Force, please visit us online at www.hoover.org/taskforces/energy-policy.

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Exhibit QQ

- The Daily Caller - http://dailycaller.com -

Kansas AG Takes On Al Gore's Alarmism — Won't Join Ant-Exxon 'Publicity Stunt'

Posted By Michael Bastasch On 10:49 AM 04/04/2016 In | No Comments

Kansas Republican Attorney General Derek Schmidt had some harsh words for Democratic attorneys general who recently joined former Vice President Al Gore to call for more investigations into ExxonMobil's stance on global warming.

"I want to assure you that the State of Kansas is not participating in the Gore group's initiative, which one reporter at the New York news conference likened to a 'publicity stunt,'" Schmidt wrote in a letter to the Kansas Corporation Commission.

Schmidt sent the letter Friday after 17 Democratic attorneys general met in New York City to announce they would fight to support the Environmental Protection Agency's so-called Clean Power Plan from legal challenges. New York AG Eric Schneiderman, who led the group, also called for more investigations into Exxon's alleged misleading of the public over global warming science.

Currently, New York, California, Massachusetts and the U.S. Virgin Islands are investigating Exxon's activities surrounding global warming, which are all inspired by reporting from InsideClimate News and Columbia University. Schmidt said he would not be joining the other AGs in investigating Exxon.

"Eleven of the 17 attorneys general who participated are the same folks who took part in the 2010 sue-and-settle lawsuit that used federal courts to try to force the adoption of the federal energy regulations that became the 'Power Plan,'" Schmidt wrote.

"If anything was 'unprecedented' about the event this week it was the strictly partisan nature of announcing state 'law enforcement' operations in the presence of a former vice president of the United State who, presumably, has no role in the enforcement of the 17 states' securities or consumer protection laws," he wrote.

At the AG event, Gore claimed Exxon was committing "fraud" by supposedly covering up, for decades, science about how bad global warming would get all while funding groups opposed to energy regulations and those skeptical of climate science.

New York AG Schneiderman even suggested harsher punishments than financial penalties for companies that mislead the public on global warming.

"Financial damages alone may be insufficient," Schneiderman said during the Tuesday event in New York City Tuesday. "The First Amendment does not give you the right to commit fraud."

For months, Democratic politicians have been calling for the Department of Justice (DOJ) to launch a Racketeer Influenced and Corrupt Organizations Act, or RICO, investigation into groups they see as casting doubt on the theory of catastrophic global warming. RICO is what the DOJ used to go after the tobacco industry for misleading the public about the dangers of smoking.

"But, this vast denial apparatus that propagates the false doubt, that props up the phony science, that gets these yahoos who can't survive … peer-reviewed scrutiny onto Fox News, onto the cable shows, saying that their scientists, they create an artificial conflict about this and that's why I think there's doubt," Rhode Island Democrat Sen. Sheldon Whitehouse, the main proponent of using RICO against skeptics and fossil fuel groups, told attendees at a League of Conservation Voters event in 2015.

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"A lot of people haven't seen through the scam that's being perpetrated," Whitehouse said. "So that's one of the reasons I hope that we get another lawsuit out of the Department of Justice, like the one they brought against the tobacco industry that showed that the whole fraudulent scam was a racketeering enterprise, held them accountable for it."

There are, however, major constitutional concerns with launching a RICO probe into groups who disagree with Democrats on global warming. Either way, Schmidt pledged not to go along with the Democratic crusade against Exxon.

"In Kansas, we won't take our eye off the ball," Schmidt wrote. "The federal administration's attempt to impose central economic planning over our nation's energy sector threatens to significantly drive up the cost of electricity for hard-working Kansas families and businesses."

Follow Michael on Facebook and Twitter

Exhibit RR

WASHINGTON Examiner

West Virginia AG 'disappointed' in probes of Exxon Mobil

By KYLE FELDSCHER (@KYLE_FELDSCHER) • 4/5/16 3:17 PM

The investigation by three attorneys general into what Exxon Mobil knew about climate change and when is driven by political desire to push climate change policies, West Virginia's attorney general said Tuesday.

Speaking on the "Inside Shale Weekly" radio show in West Virginia, Patrick Morrisey said he was deeply disappointed by the attorneys general from New York, Massachusetts and the U.S. Virgin Islands investigating Exon Mobil for possibly covering up its knowledge of climate change.

Morrisey said he believed the attorneys general are abusing the powers of their office and said he was "disappointed."

"They're looking at additional measures in order to address their policy ideas, but that's not what it's about to be attorney general," he said. "You cannot use the power of the office of attorney general to silence your critics."

New York Attorney General Eric Schneiderman announced he is investigating what Exxon Mobil knew and when, and reports indicate California Attorney General Kamala Harris began doing

the same in January. Last week, Massachusetts Attorney General Maura Healey and U.S. Virgin Islands Attorney General Claude Earle Walker announced they would do the same.

The investigations stem from media reports that Exxon Mobil learned in 1977 from a senior scientist that burning fossil fuels would warm the planet. A year later, the company began researching how carbon dioxide released from the burning of fossil fuels would affect the planet.

Six years after the internal document was produced, Exxon Mobil went on the offensive, according to the report. The company began paying for efforts that would cast doubt on climate change, including founding the Global Climate Coalition.

At the same time, the company was building climate change projections into the company's future plans. Among those plans was future drilling in the Arctic because the polar ice caps would melt.

Exxon Mobil has repeatedly denied the claims and has cast aspersions on the media reports, noting that Inside Climate News received funding from the Rockefeller Brothers Fund, which works against climate change.

Morrisey, who is one of the 30 attorneys general suing the Obama administration to block the Clean Power Plan regulations on power plants, said he believed the attorneys general are acting because they're concerned the regulation may be struck down.

The Supreme Court stayed the plan in February until legal challenges are completed. Morrisey said he thinks the attorneys general got "more aggressive" after that.

"They want to eliminate fossil fuels and that should not be driving anything," Morrisey said. "I won't speak to whether it does, but it should not be driving any legal activity."

Exhibit SS

NEWS ADVISORY
Luther Strange
Alabama Attorney General

FOR IMMEDIATE RELEASE
June 16, 2016

For More Information, contact:
Mike Lewis (334) 353-2199
Joy Patterson (334) 242-7491

ATTORNEY GENERAL STRANGE LEADS DEAR COLLEAGUE LETTER TO FELLOW ATTORNEYS GENERAL OPPOSING USE OF SUBPOENAS TO ENFORCE THEIR CLIMATE AGENDA VIEWS

(MONTGOMERY) – Alabama Attorney General Luther Strange led a 13-state Dear Colleague letter urging the nation's Attorneys General to resist using their subpoena powers to target energy industries for their views in the heated climate change debate.

"State Attorneys General should not abuse subpoena power to silence speech or side with one industry against a competitor under investigation," said Attorney General Strange. "Yet we have seen this very approach used by a group of Attorneys General in an apparent effort to advance a climate change agenda. This is a chilling abuse of power that must be stopped."

"Several state Attorneys General recently held a press conference under the banner of 'AGs United for Clean Power,'" the multi-state Dear Colleague letter said. "The media event highlighted an investigation into 'whether fossil fuel companies misled investors and the public on the impact of climate change on their businesses.' We think this effort by our colleagues to police the global warming debate through the power of the subpoena is a grave mistake."

"We are concerned that our colleagues' investigation undermines the trust the people have invested in Attorneys General to investigate fraud. Investigatory subpoenas were issued to at least one company and one non-profit believed to have made statements minimizing the risks of climate change. At the press conference, one of our colleagues noted that '[w]e are pursuing this as we would any other fraud matter.' We routinely investigate fraud and have done so with many of the states present at the press conference. But this investigation is far from routine. We are unaware of any fraud case combining the following three characteristics: 1) the investigation targets a particular type of market participant; 2) the Attorneys General identify themselves with the competitors of their investigative targets; and 3) the investigation implicates an ongoing policy debate."

The letter also questioned how one company's minimizing climate change risk is fraud and yet another company's exaggeration of climate change impact is not.

"First, this fraud investigation targets only 'fossil fuel companies' and only statements minimizing climate change risks. If it is possible to minimize the risks of climate change, then the same goes for exaggeration. If minimization is fraud, exaggeration is fraud."

Attorney General Strange was joined by fellow Attorneys General from Alaska, Arizona, Arkansas, Louisiana, Michigan, Nebraska, Nevada, Oklahoma, South Carolina, Texas, Utah and Wisconsin in the Dear Colleague letter.

A copy of the Dear Colleague letter is attached

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STATE OF ALABAMA
OFFICE OF THE ATTORNEY GENERAL

LUTHER STRANGE
ATTORNEY GENERAL

501 WASHINGTON AVENUE
MONTGOMERY, AL 36130
(334) 242-7300
WWW.AGO.ALABAMA.GOV

June 15, 2016

Dear Fellow Attorneys General:

Several state Attorneys General recently held a press conference under the banner of "AGs United for Clean Power." The media event highlighted an investigation into "whether fossil fuel companies misled investors and the public on the impact of climate change on their businesses."[1] We think this effort by our colleagues to police the global warming debate through the power of the subpoena is a grave mistake.

We all understand the need for a healthy environment, but we represent a wide range of viewpoints regarding the extent to which man contributes to climate change and the costs and benefits of any proposed fix. Nevertheless, we agree on at least one thing—this is not a question for the courts. Using law enforcement authority to resolve a public policy debate undermines the trust invested in our offices and threatens free speech.

We are concerned that our colleagues' investigation undermines the trust the people have invested in Attorneys General to investigate fraud. Investigatory subpoenas were issued to at least one company and one non-profit believed to have made statements minimizing the risks of climate change.[2] At the press conference, one of our colleagues noted that "[w]e are pursuing this as we would any other fraud matter."[3] We routinely investigate fraud, and have done so with many of the states present at the press conference. But this investigation is far from routine. We are unaware of any fraud case *combining* the following three characteristics: 1) the investigation targets a particular type of market participant; 2) the Attorneys General identify themselves with the competitors of their investigative targets; and 3) the investigation implicates an ongoing public policy debate.

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[1] Press Release, New York State Attorney General, *A.G. Schneiderman, Former Vice President Al Gore And A Coalition Of Attorneys General From Across The Country Announce Historic State-Based Effort To Combat Climate Change* (March 29, 2016) (available at http://www.ag.ny.gov/press-release/ag-schneiderman-former-vice-president-al-gore-and-coalition-attorneys-general-across).

[2] *See, e.g.*, Attorney General Schneiderman, Press Conference, AGs United For Clean Power (March 29, 2016) (confirming subpoena to ExxonMobil) (video available at http://www.ag.ny.gov/press-release/ag-schneiderman-former-vice-president-al-gore-and-coalition-attorneys-general-across); Subpoena to Competitive Enterprise Institute, *United States Virgin Islands, Office of the Attorney General v. ExxonMobil Oil Corp.*, Case No. 16-002469, Superior Court of the District of Columbia (April 4, 2016).

[3] Attorney General Schneiderman, Press Conference, AGs United For Clean Power, *supra* note 2.

First, this fraud investigation targets only "fossil fuel companies" and only statements minimizing climate change risks.[4] If it is possible to minimize the risks of climate change, then the same goes for exaggeration. If minimization is fraud, exaggeration is fraud. Some have indicated that Exxon Mobil's securities disclosures regarding climate change may be inadequate.[5] We do not know the accuracy of these charges. We do know that Exxon Mobil discloses climate change and its possible implications as a business risk. *See* Exxon Mobil Corporation SEC Form 10-k, FY 2014 (listing "Climate change and greenhouse gas restrictions" as an item 1A risk factor). If Exxon's disclosure is deficient, what of the failure of renewable energy companies to list climate change as a risk? *See, e.g.*, SolarCity Corporation SEC Form 10-k, FY 2014 (omitting from item 1A risk factors any mention of climate change or global warming). If climate change is perceived to be slowing or becoming less of a risk, many "clean energy" companies may become less valuable and some may be altogether worthless. Therefore, any fraud theory requiring more disclosure of Exxon would surely require more disclosure by "clean energy" companies.

Similarly, it has been asserted that "fossil fuel companies" may have funded non-profits who minimized the risks of climate change.[6] Does anyone doubt that "clean energy" companies have funded non-profits who exaggerated the risks of climate change? Under the stated theory for fraud, consumers and investors could suffer harm from misstatements by all energy-market participants and the non-profits they support. Yet only companies and non-profits allegedly espousing a particular viewpoint have been chosen for investigation.

Second, the Attorneys General have taken the unusual step of aligning themselves with the competitors of their investigative targets. The press conference was titled, "AGs United for Clean Power," apparently to contrast with the power generated by the investigative targets.[7] One of our colleagues emphasized that she looked forward to working with those at the press conference to "advocate for a comprehensive portfolio of renewable energy sources."[8] Furthermore, the media event featured a senior partner of a venture capital firm that invests in renewable energy companies.[9] If the focus is fraud,

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[4] *See generally* Press Release, New York State Attorney General, *supra* note 1; Press Conference, AGs United For Clean Power, *supra* note 2.

[5] *See, e.g.*, Attorney General Healey, Press Conference, AGs United For Clean Power, *supra* note 2.

[6] *See, e.g.*, Attorney General Schneiderman, Press Conference, AGs United For Clean Power, *supra* note 2.

[7] *See generally* Press Release, New York State Attorney General, *supra* note 1; Press Conference, AGs United For Clean Power, *supra* note 2.

[8] Press Release, New York State Attorney General, *supra* note 1 (quoting Attorney General Madigan).

[9] *See* Press Release, New York State Attorney General, *supra* note 1 (noting presence of Vice President Gore); Press Conference, AGs United For Clean Power, *supra* note 2 (including remarks by Vice President Gore); Press Release, Kleiner Perkins Caufield & Byers, *Al Gore Joins KPCB as Partner and John Doerr Joins Generation's Advisory Board* (November 12, 2007) (available at

such alignment by law enforcement sends the dangerous signal that companies in certain segments of the energy market need not worry about their misrepresentations. For example, though some of us may have investigated diesel emissions, we have not launched our investigations with other auto companies present or identified ourselves as "AGs United for Diesel Alternatives." Implying a safe harbor for the "Clean Power" energy segment, which some estimate at $200 billion, or approximately the size of the pharmaceutical industry, is a dangerous practice.[10]

Third, this investigation inescapably implicates a public policy debate and raises substantial First Amendment concerns. As our colleagues must know, a vigorous debate exists in this country regarding the risks of climate change and the appropriate response to those risks. Both sides are well-funded and sophisticated public policy participants. Whatever our country's response, it will affect people, communities, and businesses that all have a right to participate in this debate. Actions indicating that one side of the climate change debate should fear prosecution chills speech in violation of a formerly bi-partisan First Amendment consensus. As expressed by Justice Brandeis, it has been a foundational principle that when faced with "danger flowing from speech … the remedy to be applied is more speech, not enforced silence." *Whitney v. California*, 274 U.S. 357, 377 (1927) (Brandeis, J., concurring). Here, the remedy chosen is silence through threat of subpoena. This threat distorts the debate and impoverishes consumers and the general public who may wish to better educate themselves by hearing and evaluating both sides.

Once the government begins policing viewpoints, two solutions exist. The first solution is to police all viewpoints equally. Another group of Attorneys General could use the precedent established by the "AGs United for Clean Power" to investigate fraudulent statements associated with competing interests. The subpoenas currently directed at some market participants could be met with a barrage of subpoenas directed at other market participants. No doubt a reasonable suspicion exists regarding a number of statements relating to the risks of climate change. Even in the press conference, a senior partner at Kleiner Perkins Caufield & Byers ("Kleiner Perkins") identified "man-made global warming pollution" as "the reason" for 2015 temperatures, the spread of Zika, flooding in Louisiana and Arkansas, Super Storm Sandy, and Super Typhoon Haiyan.[11] Some evidence may support these statements. Other evidence may refute them. Do these statements increase the value of clean energy investments offered for sale by Kleiner Perkins? Should these statements justify an investigation into all contributions to environmental non-profits by Kleiner Perkins's partners? Should these questions be

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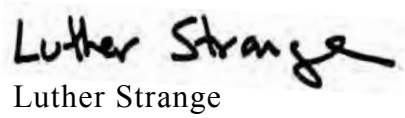
https://www.generationim.com/media/pdf-generation-kpcb-12-11-07.pdf); Kleiner Perkins Caufield & Byers public website, available at http://www.kpcb.com/partner/al-gore (confirming Vice President Gore's present status as a "senior partner").

[10] *See, e.g.*, Informational Report, Environmental Defense Fund, *Climate* (2015), at 2 (noting "U.S. clean energy market grew … to $200 billion," in 2014) (available at https://www.edf.org/sites/default/files/AR2015/EDF_AR2015_climate.pdf).

[11] Vice President Gore, Press Conference, AGs United For Clean Power, *supra* note 2.

settled by our state courts under penalty of RICO charges? May it never be. As Justice Jackson noted, our "forefathers did not trust any government to separate the true from the false for us." *Thomas v. Collins*, 323 U.S. 516, 545 (1945). We write to urge our colleagues to choose the second, and far superior, solution. Stop policing viewpoints.

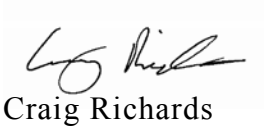
Sincerely,



Luther Strange
Attorney General
State of Alabama

Bill Schuette
Attorney General
State of Michigan

Ken Paxton
Attorney General
State of Texas



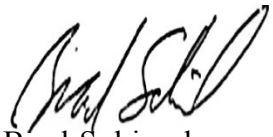
Craig Richards
Attorney General
State of Alaska

Doug Peterson
Attorney General
State of Nebraska

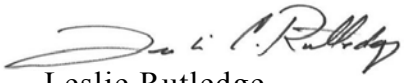
Sean Reyes
Attorney General
State of Utah

Mark Brnovich
Attorney General
State of Arizona

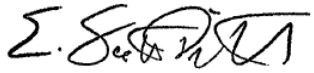
Adam Laxalt
Attorney General
State of Nevada



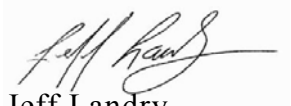
Brad Schimel
Attorney General
State of Wisconsin



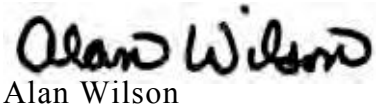
Leslie Rutledge
Attorney General
State of Arkansas



Scott Pruitt
Attorney General
State of Oklahoma



Jeff Landry
Attorney General
State of Louisiana



Alan Wilson
Attorney General
State of South Carolina

Exhibit TT

The Washington Post

PowerPost

Congress

Environmental groups reject Rep. Lamar Smith's request for information on ExxonMobil climate case

By Steven Mufson June 1

The battle over ExxonMobil and the issue of climate change took a new turn Wednesday.

Environmental groups, citing constitutional rights, said they would not comply with a sweeping request for information from the House Committee on Science, Space and Technology, led by Chairman Lamar Smith (R-Tex.).

The environmental groups and foundations said the request was unreasonably broad, violated their rights to free speech and free assembly, and interfered with their right to petition government officials.

On May 18, Smith's committee had asked for any communications that might show that eight leading environmental groups and nonprofit foundations — along with the attorneys general from about 20 states — had coordinated a legal strategy to uncover internal information about climate change that they allege ExxonMobil had concealed for decades. Smith also asked for communications between environmental groups related to state investigations into ExxonMobil and whether the oil giant had violated securities and consumer fraud laws.

The environmental groups don't think the committee is entitled to see that communication.

"In a democracy built on principles and the rule of law, 350.org cannot in good faith comply with an illegitimate government request that encroaches so fundamentally on its and its colleagues' protected constitutional rights," said a letter sent Wednesday from the group's law firm, Quinn Emanuel Urquhart & Sullivan.

The Smith letter appeared to be part of a tit-for-tat after state attorneys general sought old ExxonMobil documents related to climate.

The environmental groups and foundations have been openly pressing state prosecutors to investigate whether ExxonMobil had violated securities and consumer fraud laws by not fully disclosing what it knew about climate change and its potential impact on the company's business as well as the planet.

The oil giant has asserted that it did not violate disclosure requirements and that much of what it knew was publicly available in scientific papers.

"The Committee is concerned that these efforts to silence speech are based not on sound legal or scientific arguments, but rather on a long-term strategy developed by political activist organizations," Smith said in his May 18 letter to the groups. The letter, signed by a dozen other Republicans on the panel, said the committee feared that environmental groups were part of a "coordinated attempt to deprive companies" of their First Amendment rights and impair their ability to fund scientific research "free from intimidation and threats of prosecution."

Sen. Ted Cruz (R-Tex.) has also joined the fray, demanding in a May 25 letter signed by four other GOP senators that the Justice Department halt any investigations of whether ExxonMobil properly disclosed views on climate issues. The Justice Department has not said whether it is conducting such an investigation.

The environmental and nonprofit groups say Smith and Cruz are turning the issue on its head. Abbe David Lowell, the lawyer for Greenpeace, noted the "irony" that Smith's committee, in the name of protecting ExxonMobil's free speech, would "examine" the free speech of environmental groups.

Quinn Emanuel, which also wrote a response for the Rockefeller Family Fund, said that courts have not supported forced disclosure of communications within advocacy groups. It quoted a decision in one case that said: "Implicit in the right to associate with others to advance one's shared political beliefs is the right to exchange ideas and formulate strategy and messages, and to do so in private. Compelling disclosure of internal campaign communications can chill the exercise of these rights."

A letter from the Union of Concerned Scientists said that while the committee said it was acting in the name of "transparency," the Supreme Court has said that "there is no general authority to expose the private affairs of individuals without justification in terms of the functions of the Congress … [n]or is the Congress a law enforcement or trial agency."

Harry Sandick, a lawyer at Patterson Belknap Webb & Tyler, representing the Rockefeller Brothers Fund, said that the scope of the committee's request for information was too great a burden. The Smith letter sought all documents and communications of all Fund employees over a four-and-a-half year period when climate change was a core program area for the Fund.

The 350.org letter added that Congress could not interfere with the state attorneys general investigations even if it disagrees with them.

"Because you cannot interfere directly with state investigations and prosecutions, you cannot do so indirectly by requesting communications from private organizations with state attorneys general or others about state investigations and prosecutions," the Quinn Emanuel letter said.

Maryland Attorney General Brian Frosh also rejected the committee's request for information about his internal deliberations on the case. Moreover, he said in a letter posted on his Facebook page, "communications between our office and scientists ought to be cause for praise from the 'Science' Committee, not suspicion." He said that the committee "does not have jurisdiction to intrude upon the law enforcement actions of the chief legal officer of a sovereign state, much less scrutinize the privileged internal deliberations that underlie those actions."

Steven Mufson covers energy and other financial matters. Since joining The Post, he has covered the White House, China, economic policy and diplomacy. Follow @StevenMufson. Follow @StevenMufson

Exhibit UU

AG Won't Send Documents on Probe of Exxon Mobil

The Associated Press

June 3, 2016

Attorney General Eric Schneiderman is refusing to send requested documents about his investigation into Exxon Mobil to a congressional committee, saying Congress lacks jurisdiction over state law enforcement.

Schneiderman told U.S. Rep. Lamar Smith, a Texan who chairs the House Committee on Science, Space and Technology, that his request two weeks ago "raises serious constitutional concerns."

Smith and 12 other committee Republicans wrote two weeks ago to Schneiderman and 16 other attorneys general, requesting documents and saying they've been pushed by environmental activists "to use their prosecutorial powers to stifle scientific discourse" over climate change.

Schneiderman is investigating whether the Texas-based oil giant misled investors and consumers about global warming from burning fossil fuels and the business risks.

The congressional letter was sent the after the attorneys general on March 29 announced their coordinated effort to use their offices to address threats from climate change. Schneiderman and at least two others are investigating Exxon Mobil's representations. The company has denied any wrongdoing, saying it has provided shareholders information about the business risks for years.

"In the weeks since the March 29 press conference, legal actions against those who question climate change orthodoxy … have rapidly expanded to include subpoenas for documents, communications and research that would capture the work of more than 100 academic institutions, scientists and nonprofit organizations," the committee members wrote.

In his response, Schneiderman wrote that the lawmakers' letter made "unfounded claims" about his motives. "Second, Congress does not have jurisdiction to demand documents and communications from a state law enforcement official regarding the exercise of a state's sovereign police powers," he said.

Schneiderman added that his office was unaware of any precedent supporting congressional oversight or investigation of a state attorney general and his investigations of potential violations under state law.

Exhibit VV

EXXONSECRETS.ORG

Documenting Exxon-Mobil's funding of climate change skeptics.

List Organizations

Launch Interactive Map

FAQ

Search Exxon Secrets using Google Search:

Search

A GREENPEACE project.

EXXONMOBIL CLIMATE DENIAL FUNDING 1998-2014

TOTAL $30,925,235

LAUNCH OUR INTERACTIVE MAP TO EXPLORE THE CONNECTIONS.

Dozens of organizations are funded by ExxonMobil and its foundations that work to spread climate denial. Click the links for further details about each organization's funding and activities.

Search:

Organization	
AEI American Enterprise Institute	$3,770,000
CEI Competitive Enterprise Institute	$2,005,000
ALEC American Legislative Exchange Council	$1,730,200
American Council for Capital Formation Center for Policy Research	$1,729,523
Frontiers of Freedom	$1,272,000
Annapolis Center	$1,153,500
Atlas Economic Research Foundation	$1,082,500
National Black Chamber of Commerce	$1,025,000
US Chamber of Commerce Foundation	$1,000,000
George C. Marshall Institute	$865,000
Heritage Foundation	$830,000
Manhattan Institute	$800,000
National Taxpayers Union Foundation	$700,000
Heartland Institute	$676,500
Pacific Research Institute for Public Policy	$665,000
National Center for Policy Analysis	$645,900
CFACT Committee for a Constructive Tomorrow	$582,000
Communications Institute	$515,000
Washington Legal Foundation	$455,000
Center for American and International Law (formerly Southwestern Legal Foundation)	$452,150
FREE Foundation for Research on Economics and the Environment	$450,000
George Mason Univ. Law and Economics Center	$445,000
National Center for Public Policy Research	$445,000
Smithsonian Astrophysical Observatory	$417,212

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International Policy Network - North America	$390,000
Citizens for a Sound Economy (FreedomWorks)	$380,250
Mercatus Center, George Mason University	$380,000
Acton Institute	$365,000
Media Research Center (Cybercast News Service formerly Conservative News)	$362,500
Institute for Energy Research	$337,000
Congress of Racial Equality	$325,000
Reason Foundation / Reason Public Policy Institute	$321,000
Hoover Institution	$295,000
Pacific Legal Foundation	$275,000
Capital Research Center (Greenwatch)	$265,000
Center for Defense of Free Enterprise	$230,000
Federalist Society	$225,000
National Association of Neighborhoods	$225,000
National Legal Center for the Public Interest	$216,500
Center for a New Europe-USA	$170,000
American Council on Science and Health	$165,000
Chemical Education Foundation	$155,000
PERC Property and Environment Research Center (formerly Political Economy Research Center)	$155,000
Cato Institute	$125,000
Federal Focus	$125,000
Fraser Institute, Canada	$120,000
Media Institute	$120,000
American Spectator Foundation	$115,000
International Republican Institute	$115,000
Center for the Study of CO2 and Global Change	$100,000
Environmental Literacy Council	$100,000
Tech Central Science Foundation	$95,000
American Conservative Union Foundation	$90,000
Landmark Legal Foundation	$90,000
Independent Institute	$85,000

Free Enterprise Education Institute	$80,000
Texas Public Policy Foundation	$80,000
Institute for Study of Earth and Man	$76,500
Independent Women's Forum	$75,000
Consumer Alert	$70,000
Mountain States Legal Foundation	$60,000
Advancement of Sound Science Center	$50,000
Free Enterprise Action Institute	$50,000
Regulatory Checkbook	$50,000
Lindenwood University, St. Charles, Missouri	$40,000
Institute for Senior Studies	$30,000
Science and Environmental Policy Project	$20,000
Lexington Institute	$10,000
Institute for Policy Innovaton	$5,000

Organization

Showing 1 to 69 of 69 entries

Exhibit WW

DEPARTMENT OF JUSTICE
OFFICE OF THE ATTORNEY GENERAL

34-38 KRONPRINDSENS GADE
GERS COMPLEX, 2ND FLOOR
ST. THOMAS, U.S. VIRGIN ISLANDS 00802
(340) 774-5666 FAX: (340) 776-3494

#6040 ESTATE CASTLE COAKLEY
DESIGN CENTER BUILDING
CHRISTIANSTED, ST. CROIX, VI 00820
(340) 773-0295 FAX: (340) 773-1425

March 15, 2016

Exxon Mobil Corporation
5959 Las Colinas Boulevard
Irving, Texas 75039-2298

To Whom It May Concern:

Attached please find a subpoena issued today by this Office. We appreciate your prompt attention to its requests.

Your responses to the subpoena should be directed to me and should be produced in the format described in the instructions. Please copy our national counsel, Linda Singer, of Cohen Milstein Sellers & Toll PLLC, on all productions and correspondence relating to this subpoena at the address below.

Linda Singer
Cohen Milstein Sellers & Toll PLLC
1100 New York Avenue, NW, Suite 500
Washington, DC 20005
(202) 408-4600
lsinger@cohenmilstein.com

Please feel free to direct any questions regarding our requests or your production to either me or to Ms. Singer. Thank you for your prompt attention to this matter.

Sincerely,

for Claude Earl Walker, Esq.
Attorney General

UNITED STATES VIRGIN ISLANDS
DEPARTMENT OF JUSTICE

IN RE INVESTIGATION OF VIOLATIONS OF THE CRIMINALLY INFLUENCED AND CORRUPT ORGANIZATIONS ACT	))))	**SUBPOENA**

TO: Exxon Mobil Corporation
5959 Las Colinas Boulevard
Irving, Texas 75039-2298

You are suspected to have engaged in, or be engaging in, conduct constituting a civil violation of the Criminally Influenced and Corrupt Organizations Act, 14 V.I.C. § 605, by having engaged or engaging in conduct misrepresenting Your knowledge of the likelihood that Your products and activities have contributed and are continuing to contribute to Climate Change in order to defraud the Government of the United States Virgin Islands ("the Government") and consumers in the Virgin Islands, in violation of 14 V.I.C.§ 834 (prohibiting obtaining money by false pretenses) and 14 V.I.C. § 551 (prohibiting conspiracy to obtain money by false pretenses).

Therefore, YOU ARE HEREBY DIRECTED, by the authority granted to the Attorney General of the United States Virgin Islands ("USVI"), pursuant to the provisions of 14 V.I.C. § 612, to produce and deliver the documents responsive to the inquiries set forth herein, on or before **April 15, 2016**, directed to the attention of Attorney General Claude Earl Walker, Esq.

Failure to comply with this subpoena may result in an enforcement action being brought against you pursuant to 14 V.I.C. § 612(k).

INSTRUCTIONS

A. If any document, report, study, memorandum or other written material or information is withheld or not identified under claim of privilege, furnish a list identifying each document or requested information together with the following information (as relevant): date, author, sender, recipient, persons to whom copies were furnished or information provided together with their job titles, subject matter of the document, the basis for the privilege, and the paragraph or paragraphs of the Request(s) to which the document or information is responsive.

B. In each instance in which a document is produced in response to a Request, the current version should be produced together with all earlier versions, or predecessor documents serving the same function during the relevant time period, even though the title of earlier documents may differ from current versions.

C. **Any document produced whose text is not already searchable should be processed through Optical Character Recognition ("OCR") so that it is fully searchable.**

D. This Investigative Subpoena calls for all described documents in your possession, custody, or control without regard to the person or persons by whom or for whom the documents were prepared (e.g., your company employees, contractors, vendors, distributors, service providers, competitors, or others).

E. The following procedures shall apply to the production, inspection, and copying of documents:

(a) You shall produce original, complete documents. Documents shall be produced in the order that the documents are maintained in your files, in original folders, with the folder's original file tabs. In response to this Subpoena, true copies of original

documents may be submitted in lieu of originals, provided that you retain the original documents in such manner as to be able to produce them if later required.

1. Any documents produced in response to this Investigative Subpoena should be provided as a Group 4 compression single-page "TIFF" image that reflects how the source document would have appeared if printed out to a printer attached to a computer viewing the file. Extracted text should be included in the manner provided herein. **To the extent that extracted text does not exist, these images should be processed through OCR so that they are fully searchable.** Extracted text and OCR should be provided in separate document level text files. "Load files" shall be produced to accompany the images and shall facilitate the use of the litigation support database systems to review the produced images.

2. Document Unitization. Each page of a document shall be electronically converted into an image as described above. If a document is more than one page, the unitization of the document and any attachments and/or affixed notes shall be maintained as it existed in the original when creating the image file and appropriately designated in the load files. The corresponding parent/attachment relationships, to the extent possible, shall be provided in the load files furnished with each production.

3. Bates Numbering. Each page of a produced document shall have a legible, unique page identifier ("Bates Number") electronically branded onto the image at a location that does not obliterate, conceal, or interfere with any information from the source document. To ensure that the Bates Numbers do not obscure portions of the documents, the images may be proportionally reduced to create a larger margin in which the Bates Number may be branded. There shall be no other legend or stamp placed on the document image, except those sections of a document that are redacted to eliminate material protected from disclosure by the attorney-client or work product privileges shall have the legend "REDACTED" placed in the location where the redaction(s) occurred or shall otherwise note the location and/or location of the information for which such protections are claimed.

4. File Naming Conventions. Each document image file shall be named with the unique Bates Number of the page of the document in the case of single-page TIFFs, followed by the extension "TIF". Each document shall be named with a unique document identifier. Attachments shall have their own unique document identifiers.

5. Production Media. The documents should be produced on CD-ROM, DVD, external hard drive (with standard Windows PC compatible interface), (the "Production Media"). Each piece of Production Media shall identify a production number corresponding to the production "wave" the documents on the Production Media are associated with (e.g., "V001", "V002"), as well as the volume of the material in that production wave (e.g., "-001", "-002").

For example, if the first production wave comprises document images on three hard drives, you shall label each hard drive in the following manner: "V001-001", "V001-002", "V001-003". Additional information that shall be identified on the physical Production Media shall include: (1) text referencing that it was produced in response to this Investigative Subpoena, (2) your name, (3) the production date, and (4) the Bates Number range of the materials contained on the Production Media.

6. Objective Coding/Extracted Meta Data. You shall produce with each production of documents extracted metadata for each document (the "Objective Coding") included in the load file. The data file shall include the fields and type of content set forth in the **"SPECIAL INSTRUCTIONS FOR ELECTRONICALLY STORED MATERIAL"** section. Objective Coding shall be labeled and produced on Production Media in accordance with the provisions set forth above.

7. Native format for Excel and databases. To the extent that such documents exist in Excel or some other spreadsheet, produce the document in Excel. To the extent that the document constitutes a database, produce the document in Access.

(b) All attachments to responsive documents shall be produced attached to the responsive documents.

(c) No portion of any documents will be masked and the entire document shall be produced.

(d) The documents shall be produced at the location set forth or at such other locations as counsel agree.

(e) Documents shall be available on reasonable notice for inspection and copying after initial production throughout the term of the investigation or litigation. The documents shall be maintained in the order in which they were produced.

(f) You shall label each group of documents in the following manner: Response to Request No. 1; Response to Request No. 2, etc., and identify the Bates Number range for the corresponding documents that are responsive or written responses.

(g) Provide a key to all abbreviations used in the documents, providing a method of identifying all documents requiring use of the key.

(h) If you obtain information or documents responsive to any request after you have submitted your written responses or production, you should supplement your responses and/or production with any new and or different information and/or documents that become available to you.

(i) If any document responsive to this Subpoena was lost or has been removed, destroyed, or altered prior to the service of this Subpoena, furnish the following information with respect to each such document:

- a description to the extent known, and the last time and location that the document was known to be or is believed to have existed;
- the date, sender, recipient, and other persons to whom copies were sent, subject matter, present location, and location of any copies; and
- the identity of any person authorizing or participating in any removal, destruction, or alteration; date of such removal, destruction or alteration; and the method and circumstances of such removal, destruction, or alteration.

F. This subpoena imposes a continuing duty to produce promptly any responsive information or item that comes into your knowledge, possession, custody, or control after your initial production of responses to the requests.

SPECIAL INSTRUCTIONS

Electronic documents should be produced in accordance with the following instructions:

A. Single page TIFFs at a 300 DPI resolution which are named for the Bates Number of the page. There should NOT be more than 1000 images per folder.

B. **Document level text files containing OCR or extracted text** named with the Bates Number of the first page of the document.

C. Data load file containing all of the metadata fields (both system and application – see list below) from the original Native documents – .dat for Concordance.

D. The Concordance .dat file of extracted metadata should be delimited with the Concordance default characters – ASCII 020 for the comma character and ASCII 254 for the quote character. The use of commas and quotes as delimiters is <u>not</u> acceptable.

E. The database field names should be included in the first line of the metadata file listed in the order they appear in the file.

F. An image load file for Concordance – such as ".opt."

G. For electronic documents created in Excel (spreadsheets) or Access (databases), provide those documents in Native format as well as a TIFF placeholder.

H. For all documents produced, provide the following:

Field #	Field Name	Format	Description
1	BEGDOCNO	Text	Image key of first page of document
2	ENDDOCNO	Text	Image key of last page of document
3	BEGATTACH	Text	For emails/attachments ONLY: Image key of the first page of the parent email. Please DO NOT populate these fields for emails with no attachments.
4	ENDATTACH	Text	For emails/attachments ONLY: Image key of the last page of the last attachment. Please DO NOT populate these fields for emails with no attachments.
5	CUSTODIAN	Text	Custodian from whom documents were collected (semi-colon delimited, if multiple entries)
6	AUTHOR	Text	Email "From" data or user/author name from electronic files
7	RECIPIENT	Text	Email "To" data (semi-colon delimited, if multiple entries)
8	CC	Text	Email "CC" data (semi-colon delimited, if multiple entries)
9	BCC	Text	Email "BCC" data (semi-colon delimited, if multiple entries)

Field #	Field Name	Format	Description
10	MAILSUBJECT	Text	Email subject. This value should be populated down to any children/attachments of the parent email.
11	MAILDATE	MM/DD/YYYY	Email date sent. This value should be populated down to any children/attachments of the parent email.
12	MAILTIME	HH:MM:SS	Email time sent, in military time. This value should be populated down to any children/attachments of the parent email.
13	ATTACHMENTS	Text	Semi-colon delimited list of the original file names of any attachments to an email
14	FILENAME	Text	For emails: Mail subject For attachments and e-files: File name from source media
15	HASH_VALUE	Text	Hash value generated for purposes of de-duplication if performed
16	FileExt	Text	Original file extension for the email or electronic file being produced (e.g., .eml, .pdf, .xls, .doc)

DEFINITIONS

1. "All" shall be construed to include the collective as well as the singular and shall mean "each," "any," and "every."

2. "Any" shall be construed to mean "any and all."

3. "Climate Change" refers to the general subject matter of changes in global or regional climates that persist over time, whether due to natural variability or as a result of human activity. Any documents or communications using any of the terms "climate change," "climatology," "climate science," "climate model," "climate modeling," "global warming," "greenhouse gas," "greenhouse effect," "CO_2 greenhouse," "climate skeptics," "climate skepticism," "global

cooling," "solar variation," "arctic shrinkage," "carbon tax," "climate legislation," or "Keeling Curve" concern climate change, although documents or communications need not include any of these terms to concern climate change. Any documents or communications concerning rising sea levels, Arctic and/or Antarctic ice melt, declining sea ice, melting glaciers, declining snowfall, oceanic warming, ocean acidification, or increases in extreme weather events—or the opposites of these phenomena (e.g., dropping sea levels, oceanic cooling)—concern climate change, although documents or communications need not refer to any of these phenomena to concern climate change.

4. "Communications" mean any exchange of information by any means of transmissions, sending or receipt of information of any kind by or through any means including but not limited to: verbal expression; gesture; writings; documents; language (machine, foreign, or otherwise) of any kind; computer electronics; email; SMS, MMS, or other "text" messages; messages on "social networking" platforms (including but not limited to Facebook, Google+, MySpace, and Twitter); shared applications from cell phones, "smartphones," netbooks, and laptops; sound, radio, or video signals; telecommunication; telephone; teletype; facsimile; telegram; microfilm; or by any other means. "Communications" also shall include, without limitation, all originals and copies of inquiries, discussions, conversations, correspondence, negotiations, agreements, understandings, meetings, notices, requests, responses, demands, complaints, press, publicity or trade releases and the like that are provided by you or to you by others. Any Communications produced, including emails, should include the original sender, all original recipients, the date and time, and any files originally attached to such emails in the form and filetype in which they were originally attached.

5. "Concerning" means directly or indirectly mentioning or describing, relating to, referring to, regarding, evidencing, setting forth, identifying, memorializing, created in connection with or as a result of, commenting on, embodying, evaluating, analyzing, tracking, reflecting, or constituting, in whole or in part, a stated subject matter.

6. "Documents" mean any writing or any other tangible thing, whether printed, recorded (in audio, video, electronically or by any other means), reproduced by any process, or written or produced by hand, including but not limited to: letters; memoranda; notes; opinions; books; reports; studies; agreements; statements; communications (including inter-company and intra-company communications); correspondence; telegrams; email; instant messages; chat logs; SMS, MMS or other "text" messages; posted information; messages; chat logs on "social networking" platforms (including but not limited to Facebook, Google+, MySpace and Twitter); logs; bookkeeping entries; summaries or records of personal conversations; diaries; calendars; telephone messages and logs; forecasts; photographs; images; tape recordings; models; statistical statements; graphs; laboratory and engineering reports; notebooks; charts; tabulations; maps; plans; drawings; minutes; bylaws; resolutions; records of conferences; expressions or statements of policy; lists of persons attending meetings or conferences; lists of clients or customers or suppliers; reports or summaries of interviews; opinions or reports of negotiations; brochures; pamphlets; advertisements; circulars; trade letters; press releases; drafts of any document and revisions of drafts of any document; and any other similar paper or record in any form or medium whatsoever. The term also includes a copy of a document where the copy is not exactly the same as the original. The term also includes emails and other documents made or stored in electronic form, whether kept on computers, computer tapes,

disks, drives, Cloud storage, or other media upon which information may be recorded of any type.

7. "Identify" means:

   (a) When used in connection with a Document, provide the nature of the Document, its title, its description (e.g., memorandum, letter, contract), date, author, its current location, its current custodian, and the number of pages.

   (b) When used in connection with a person, provide that person's name, current residential address and telephone number, job title, and current business address and telephone number. (If current information is not available, provide last-known address and telephone number.)

   (c) When used in reference to an "artificial person" or entity such as a corporation or partnership, provide (1) the organization's full name and trade name, if any; (2) the address and telephone number of its principle place of business; and (3) the names and titles of the entity's officers, directors, managing agents, or employees.

   (d) When used in connection with an oral communication, provide the nature of that communication, the parties to it, the date, place, and substance of that communication, and the identification of any document concerning it.

8. "Including" is used merely to emphasize that a request for certain types of documents or information should not be construed as limiting the request in any way.

9. "Person" means any natural person or such person's legal representative; any partnership, domestic or foreign corporation, or limited liability company; any company, trust, business entity, or association; and any agent, employee, salesman, partner, officer, director, member, stockholder, associate, or trustee.

10. "You" or "Your" refers to Exxon Mobil Corporation, any present or former predecessor, successor, parent, subsidiary, division, d/b/a company, and affiliated entities, as well as all owners, officers, agents, employers, employees, or other representatives thereof, or any other person acting in whole or in part on behalf of any of the foregoing entities. These terms also

refer to the ExxonMobil Foundation, formerly known as the Esso Education Foundation, and/or the Exxon Education Foundation.

RELEVANT TIME PERIOD

The relevant time period, unless otherwise indicated in a specific request, is from January 1, 1977 to the present. The time limits should not be construed as date limits; for example, if a policy, contract, or other document in effect during the relevant time period was created before the relevant time period, then such document must be produced.

DOCUMENTS AND INFORMATION TO BE PROVIDED

1. All Documents or Communications reflecting or concerning studies, research, or other reviews You conducted or funded (in whole or in part) regarding the certainty, uncertainty, causes, or impacts of Climate Change and models to assess or predict Climate Change or its impacts, as well as all Documents or Communications reflecting or concerning steps You took to address the potential impact of Climate Change on Your operations.

2. All Documents or Communications reflecting or concerning studies, research or other reviews You conducted or funded (in whole or in part) regarding whether and how Your products or activities impact Climate Change at a regional or global level.

3. All public statements You made, including but not limited to advertisements, op-eds, letters to the editor, speeches, and corporate publications, concerning Climate Change, including all drafts of such statements and internal Communications regarding such statements.

4. All minutes of meetings of Your Board and any Board committees reflecting discussions concerning Climate Change and any memoranda to the Board or from Board members concerning Climate Change.

5. All Documents or Communications concerning any potential impacts on Your sales, revenue, or business caused by Climate Change itself, by public policies responding to Climate Change (including any legislation or regulation concerning Climate Change), or by public perceptions of Climate Change.

6. All Documents or Communications concerning research, advocacy, strategy, reports, studies, reviews, or public opinions regarding Climate Change sent to or received from: Global Climate Coalition; Global Climate Science Communications Team (GCSCT, also known as the Global Climate Science Team); Science & Environmental Policy Project (SEPP); National Center for Public Policy Research (NCPPR); Committee for a Constructive Tomorrow (CFACT); Environmental Literacy Council (ELI); Independent Commission on Environmental Education; Environmental Issues Council (EIC); Science and Public Policy Institute (SPPI); Adv ancement of Sound Science Coalition (or Advancement of Sound Science Center); Heartland Institute; Center for the Study of Carbon Dioxide and Global Change; Tech Central Science Foundation; Beacon Hill Institute at Suffolk University; American Petroleum Institute (AEI); Competitive Enterprise Institute (CEI); American Legislative Exchange Council (ALEC); U.S. Oil & Gas Association; International Petroleum Industry Environmental Conservation Association; American Council for Capital Formation and its Center for Policy Research; Frontiers of Freedom, or its Center for Free Market Environmentalism and Conservation, or its Center for Science and Public Policy; Annapolis Center for Science-Based Public Policy; Atlas Economic Research Foundation; National Black Chamber of Commerce;

U.S. Chamber of Commerce Foundation; George C. Marshall Institute; Heritage Foundation; Manhattan Institute; National Taxpayers Union Foundation; Heartland Institute; Pacific Research Institute for Public Policy; National Center for Policy Analysis; Communications Institute; Washington Legal Foundation; Center for American and International Law (formerly Southwestern Legal Foundation); Foundation for Research on Economics and the Environment (FREE); George Mason University Law and Economics Center; National Center for Public Policy Research; Smithsonian Astrophysical Observatory; International Policy Network; FreedomWorks; Citizens for a Sound Economy; Citizens for a Sound Economy Foundation; Americans for Prosperity; Mercatus Center at George Mason University; Acton Institute for the Study of Religious Liberty; Media Research Center (formerly Cybercast News Service and Conservative News); Institute for Energy Research; Congress of Racial Equality; Reason Foundation; Reason Public Policy Institute; Hoover Institution; Pacific Legal Foundation; Capital Research Center; Center for Defense of Free Enterprise; Federalist Society for Law and Public Policy Studies; National Association of Neighborhoods; National Legal Center for the Public Interest; Center for a New Europe-USA; American Council on Science and Health; Chemical Education Foundation; Property and Environment Research Center (PERC, formerly Political Economy Research Center); Cato Institute; Federal Focus; Fraser Institute; Media Institute; American Spectator Foundation; International Republican Institute; American Conservative Union Foundation; Landmark Legal Foundation; Independent Institute; Free Enterprise Education Institute; Texas Public Policy Foundation; Institute for Study of Earth and Man; Independent Women's Forum; Consumer Alert; Mountain States Legal Foundation; Free Enterprise Action Institute; Regulatory Checkbook; Lindenwood University in St. Charles, Missouri; Institute for Senior Studies; Science and Environmental Policy Project;

Lexington Institute; Institute for Policy Innovation; Africa Fighting Malaria; American Friends of the Institute of Economic Affairs; Atlantic Legal Foundation; Weidenbaum Center at Washington University (formerly Center for the Study of American Business); Mackinac Center for Public Policy; Arizona State University Office of Climatology; DCI Group; and any other organizations engaged in research or advocacy concerning Climate Change or public policies, including legislation, relating to Climate Change. In Your Response to this Request, include all Communications concerning the role of each of these organizations in conducting research, studies, or reviews of Climate Change or in attempting to affect public opinions regarding Climate Change. In Your Response to this Request, include all records of payments to entities covered by this Request.

7. All Documents or Communications concerning research, advocacy, strategy, reports, studies, reviews, or public opinions regarding Climate Change sent to, received from, or about: Wallace Broecker; Taro Takahashi; Mike MacCracken; Martin Hoffert; John Christy; Richard Lindzen; Will Ollison; Joe Walker; Sallie Baliunas; Robert C. Balling, Jr.; Ross McKitrick; Wei-Hock "Willie" Soon; Patrick J. Michaels; S. Fred Singer; Roger Bate; Sherwood B. Idso; Frederick Seitz; Myron Ebell; Robert Ferguson; David R. Legates; Hugh Ellsaesser; George Taylor; Tom Synhorst; Doug Goodyear; Timothy N. Hyde; Michelle Ross; Susan Moya; A. John Adams; Alan Caudill; Candace Crandall; David Rothbard; Jeffrey Salmon; Lee Garrigan; Lynn Bouchey; Myron Ebell; Peter Cleary; Robert Gehri; Sharon Kneiss; Steven J. Milloy; Paul Driessen; and any other persons conducting research or advocacy concerning Climate Change. In Your Response to this Request, include all Communications regarding the role of each of these individuals in conducting research, studies or reviews of Climate Change or in attempting

to affect public opinions regarding Climate Change. In Your Response to this Request, include all records of payments to individuals covered by this Request.

8. All Documents or Communications concerning research, advocacy, strategy, reports, studies, reviews, or public opinions regarding Climate Change sent to or received from: James F. Black; Andrew Callegari; Roger Cohen; Edward E. David, Jr.; Brian Flannery; Edward Garvey; David Slade; Henry Shaw; N. Richard Werthamer; Harold N. Weinberg; Ed K. Wiley; Robert E. Barnum; Mike P. Margolis; Haroon Kheshgi; Randy Randol; and any other current or former employees or contractors conducting research or advocacy concerning Climate Change. In Your Response to this Request, include all Communications regarding the role of each of these individuals in conducting research, studies or reviews of Climate Change or in attempting to affect public opinions regarding Climate Change. In Your Response to this Request, include all records of payments to individuals covered by this Request.

9. All Documents or Communications concerning Your efforts to employ, fund, associate with, collaborate with, or work with any organizations, entities, associations, individuals, or groups of persons to influence public views regarding the likelihood that or extent to which carbon dioxide, methane, oil and gas extraction or use, or any of Exxon Mobil Corporation's products or activities directly or indirectly impact Climate Change. Include Documents or Communications evidencing such employment, funding, association, collaboration, or work.

10. All Documents concerning the "CO_2 Greenhouse" research project or any other project researching the greenhouse effects of carbon dioxide or other greenhouse gases.

11. All Documents (including drafts) sent to or received by, and all Communications with or about, public relations firms regarding Your statements concerning or strategies for addressing

Climate Change. Include in your response a list, or Documents sufficient to Identify, all public relations firms that have been retained or consulted by You or made proposals to You concerning Climate Change.

12. All Documents and Communications concerning your strategies for publicly discussing Climate Change, including but not limited to Communications to employees and spokespersons about how to discuss Climate Change.

13. All Documents and Communications concerning the following articles, their authors, their content, or their impact:

    (a) All articles in the series "Exxon: The Road Not Taken," published by *InsideClimate News* since September 1, 2015.

    (b) Articles published in the *Los Angeles Times* since September 1, 2015 concerning You and Climate Change

14. All Documents and Communications concerning investigations of your statements regarding Climate Change by any state attorney general, other enforcement agency, or environmental or other organization.

15. All Communications since June 1, 2015 with or about the Royal Society of the United Kingdom.

16. All Documents concerning Your budget, spending, or plans for public relations, advertising, or other advocacy relating to Climate Change.

NOTE: This subpoena does not require that you travel to the United States Virgin Islands or to the Department of Justice. You may comply with this Subpoena Duces Tecum by forwarding a true and correct copy of any document or other item requested, postmarked prior to the date for which production has been designated, with a signed and notarized copy of the attached

"CERTIFICATE OF CUSTODIAN OF RECORDS." Failure to appear with, or deliver the requested information, as stated above, shall be deemed a violation of 14 V.I.C. § 612 and will subject you to such sanctions and penalties as are determined by law. Failure to deliver a signed and notarized copy of the attached "CERTIFICATE OF CUSTODIAN OF RECORDS" will be considered a failure to comply with this subpoena.

WHEREFORE, I have set my hand this 15 day of March, 2016.

SUBMITTED BY:

CLAUDE EARL WALKER
Attorney General

By: _____
for Claude Earl Walker, Esq.
Attorney General
3438 Kronprindsens Gade
GERS Complex, 2nd Floor
St. Thomas, U.S. Virgin Islands 00802
(340) 774-5666

CERTIFICATE OF CUSTODIAN OF RECORDS

UNITED STATES VIRGIN ISLANDS)
)
)

COMES NOW _____, first being duly sworn, deposes and says:

1. That the deponent is the _____ for Exxon Mobil Corporation and, in such capacity, is its custodian of records.

2. That on the ____ day of _____, 2016, the deponent was served with a subpoena calling for the production of records.

3. That the deponent has examined the original of those records and has made or caused to be made a true and exact copy of them and that the reproduction of them attached hereto is true and complete.

4. That the original of those records was made at or near the time of the act, event, condition or opinion recited therein by or from information transmitted by a person with knowledge, in the course of a regularly conducted activity of the deponent or the office or company in which the deponent is engaged.

5. I further certify to the best of my knowledge, information, and belief that all documents or things required to be produced pursuant to the attached subpoena issued on _____, 2016 have been produced.

DATED this ____ day of _____, 2016.

_____
CUSTODIAN OF RECORDS

SUBSCRIBED and SWORN TO before me
by _____ this
_____ day of _____, 2016.

_____
NOTARY PUBLIC

Exhibit S1

Dear All,
If you are receiving this message then we believe you are attending the meeting this coming Friday Jan 8 regarding Exxon.
The meeting will take place at:
Rockefeller Family Fund
475 Riverside Dr entrance on Claremont @ 120th St. in Upper Manhattan, 1 Train to 116th St. from Penn Station
Please confirm whether you are attending in person (preferred, of course!) or remotely. If remotely see instructions below.
Here is a DRAFT Agenda, your suggestions are welcome.

DRAFT Agenda
Exxon: Revelations & Opportunities
Friday January 8 11 AM – 3 PM
475 Riverside Dr @ 120th ST Manhattan
10:45: Arrival and Coffee
11:00 – 11:15 Introductions and purpose of the meeting (Lee)
11:15-12:00 – Goals of an Exxon campaign
What are our common goals? Examples include:

- To establish in public's mind that Exxon is a corrupt institution that has pushed humanity (and all creation) toward climate chaos and grave harm.
- To delegitimize them as a political actor
- To force officials to disassociate themselves from Exxon, their money, and their historic opposition to climate progress, for example by refusing campaign donations, refusing to take meetings, calling for a price on carbon, etc.
- To call into question climate advantages of fracking, compared to coal.
- To drive divestment from Exxon.
- To drive Exxon & climate into center of 2016 election cycle.

Other goals?
12:00 – 1:00 Legal Status and prospects
What are the main avenues for legal actions & related campaigns?
-AGs
-DOJ
-Torts
-International
-Other

Which of these has the best prospects for successful action? For getting discovery? For creating scandal? Shortest time line? Do we know which offices may already be considering action and how we can best engage to convince them to proceed?

1:00 – 1:30 LUNCH

1:30 – 2:00 Coordination

Does this group want to establish a rapid response and coordination structure to react to new research, revelations and legal developments as they happen?

A higher level of coordination with a war room, joint social media, and coordinated organizing and media pushes?

Who else should be asked to participate?

Do we need a single facilitator or small group unit?

2:00 – 3:00 Other considerations and next steps

-To what extent do we focus on Exxon and to what extent other oil companies?

- How to include (or not) industry associations, scientists and front groups?

-What is best way to follow up with you about how your organization wants to and can engage in this campaign?

-What are the next steps?

3:00 Adjourn

Exhibit S2

Exxon Mobil under more scrutiny from NY Attorney General

by Chris Isidore @CNNMoney

September 16, 2016: 12:18 PM ET

0:00 / 1:05

5 stunning stats about Exxon

Exxon Mobil is under scrutiny yet again.

The office of New York Attorney General Eric Schneiderman was already probing whether the nation's largest oil company withheld information from shareholders and the public about the risks that climate change poses to the company's business. Now Schneiderman is looking into whether the company is properly accounting for the value of its crude and natural gas supplies in the face of a steep drop in energy prices the last two years, according to a source familiar with the probe.

Other big energy companies have taken big hits to their earnings after writing down the value of their oil or natural gas reserves in recent financial reports. Some have even posted losses as a result. Low energy prices also means that it's no longer economically feasible to extract oil or gas from some companies' reserves.

Related: Exxon profits crash 59% to 17-year low

But Exxon Mobil (XOM) has yet to take such a charge against its earnings. And while violating an accounting rule would typically be the purview of federal authorities such as the Securities and Exchange Commission,

Schneiderman has taken a broad view of his office's regulatory role over businesses that aren't necessarily based in New York, from overseas investment banks to automaker Volkswagen to Exxon Mobil.

Asked about Schneiderman's probe, Exxon Mobil said "Our results are in accordance with the accounting and reporting standards."

The company's most recent filing addressed the need for a such an adjustment, although it said that was mitigated by the history of significant volatility in natural gas and oil prices.
"The corporation performs asset valuation analysis on an ongoing basis as a part of its asset management program," it said in its most recent annual report. "In general, the corporation does not view temporarily low prices or margins as a trigger event for conducting impairment tests."

By contrast, BP (BP) has taken more than $2 billion in charges in the last two years, primarily due to the drop in the price of oil and natural gas.

CNNMoney (New York)
First published September 16, 2016: 12:18 PM ET

Exhibit S3

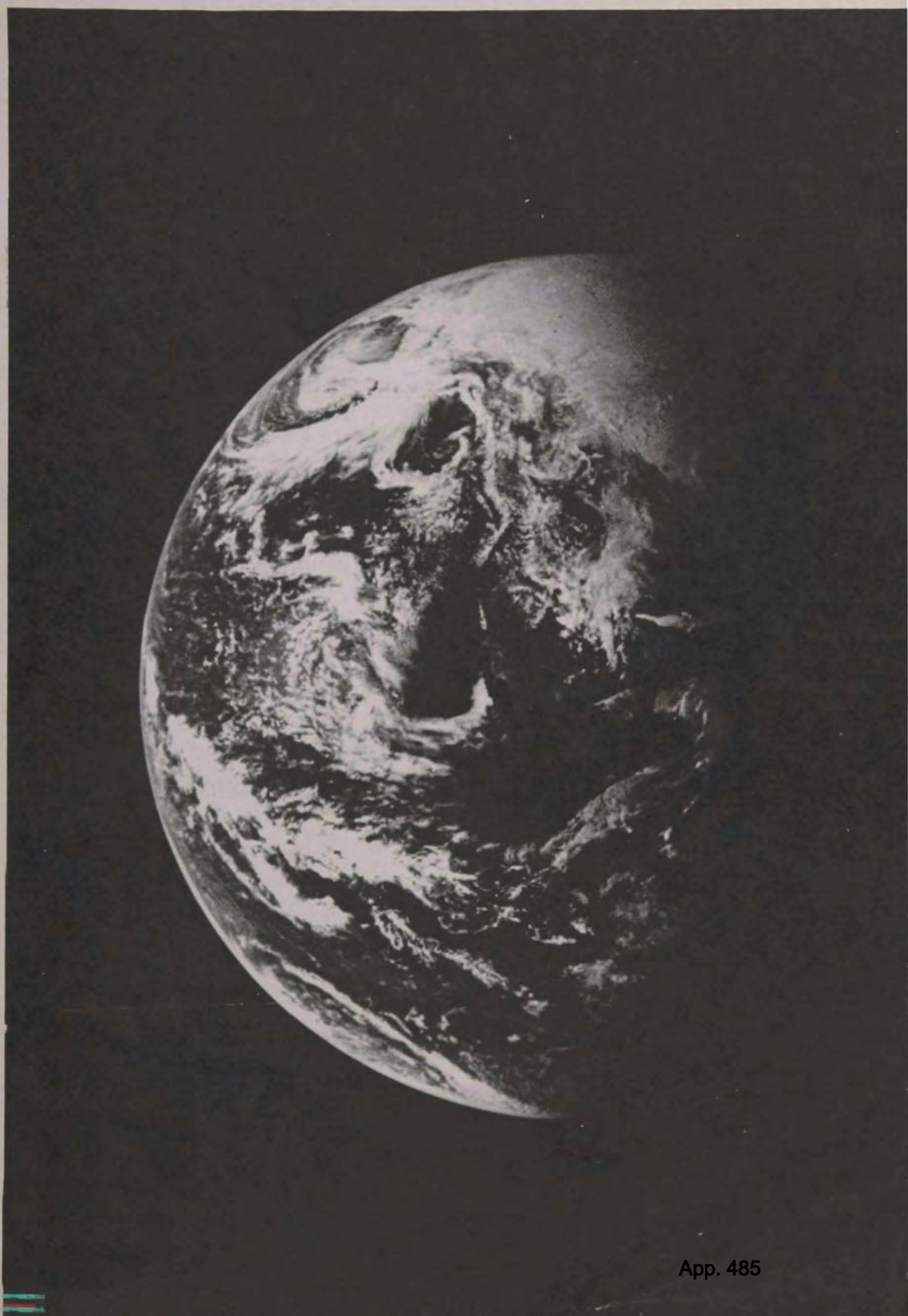
United States
Environmental Protection
Agency

Strategic Studies Staff
Office of Policy and
Resources Management
Washington, DC 20460

September 1983

EPA

Can We Delay A Greenhouse Warming?



CAN WE DELAY A GREENHOUSE WARMING?

The Effectiveness and Feasibility of Options to Slow a Build-Up of Carbon Dioxide in the Atmosphere

STEPHEN SEIDEL
U.S. Environmental Protection Agency

and

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Strategic Studies Staff
Office of Policy Analysis
Office of Policy and Resources Management
Washington, D.C. 20460

September 1983

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ACKNOWLEDGEMENTS

Many individuals made valuable contributions to this study. In particular, Dr. James Hansen and his colleagues at NASA's Goddard Institute for Space Studies provided an atmospheric temperature model, and Dr. William Emanuel of Oak Ridge National Laboratories made available a carbon cycle model, both of which we employed in the study. They also provided valuable guidance in the application of these models. An energy and CO_2 emissions model was obtained from the Institute for Energy Analysis. Alan Truelove of Pechan and Associates, Inc. assisted in operating and integrating the various computer programs. We would also like to thank Ken Schweers and Mike Gibbons of ICF Inc., who contributed background information and insights into the economic costs of limiting fossil fuel use.

Martin Wagner, Acting Director of EPA's Energy Policy Division, and John Hoffman, who directs EPA's research program on greenhouse effects, provided useful comments on previous drafts. We are also indebted to several other reviewers: Dr. Martin Miller and Dr. David Rose, both of the Massachusetts Institute of Technology; Dr. Henry Lee, the Director of Harvard's Energy and Environmental Policy Center; and Jesse Ausebel of the National Academy of Sciences. However, the contents and conclusions of the study remain the responsibility of the authors.

EXECUTIVE SUMMARY

Evidence continues to accumulate that increases in atmospheric carbon dioxide (CO_2) and other "greenhouse" gases will substantially raise global temperature. While considerable uncertainty exists concerning the rate and ultimate magnitude of such a temperature rise, current estimates suggest that a 2°C (3.6°F) increase could occur by the middle of the next century, and a 5°C (9°F) increase by 2100. Such increases in the span of only a few decades represent an unprecedented rate of atmospheric warming.

Temperature increases are likely to be accompanied by dramatic changes in precipitation and storm patterns and a rise in global average sea level. As a result, agricultural conditions will be significantly altered, environmental and economic systems potentially disrupted, and political institutions stressed.

Responses to the threat of a greenhouse warming are polarized. Many have dismissed it as too speculative or too distant to be of concern. Some assume that technological options will emerge to prevent a warming or, at worst, to ameliorate harmful consequences. Others argue that only an immediate and radical change in the rate of CO_2 emissions can avert worldwide catastrophy. The risks are high in pursuing a "wait and see" attitude on one hand, or in acting impulsively on the other.

This study aims to shed light on the debate by evaluating the usefulness of various strategies for slowing or limiting a global warming. Better information is essential if scientific researchers, policymakers, and private sector decisionmakers are to work together effectively in addressing the threat of climate change.

FOCUS OF STUDY

Because increases in atmospheric CO_2 primarily result from the use of fossil fuels, one logical response to the threat of climate change is to reduce global dependence on these energy sources. This study takes a first look at whether specific policies aimed at limiting the use of fossil fuels would prove effective in delaying temperature increases over the next 120 years. Specifically, it examines whether a tax on the use of fossil fuels or a ban on the use of coal, shale oil, or synfuels could be effective in delaying a greenhouse warming. These policies are also evaluated for their economic and political feasibility. To put our findings in perspective, alternative, nonenergy approaches to limiting a greenhouse warming are also reviewed.

METHODOLOGY

Evaluating the effectiveness of energy policies to reduce levels of CO_2 requires the estimation of future patterns of energy use, the effect of these patterns on CO_2 emissions, the

fate of CO_2 once emitted, and the relationship between levels of atmospheric CO_2 and temperature. Three models were used in the estimation process:

- a world energy model to project future supply and demand for alternative fuels and to estimate CO_2 emissions based on fuel use mixes;
- a carbon cycle model to translate CO_2 emissions into increases in atmospheric CO_2 concentrations; and
- an atmospheric temperature model to estimate changes in temperature based on increases in atmospheric CO_2 and other greenhouse gases.

We used these models to explore a range of possible assumptions about energy demand and technologies, atmospheric responses, and policy alternatives.

We evaluated both medium-run (by the middle of the next century) and long-run (by 2100) effects, placing greater confidence in the shorter run results. The timing of a 2°C rise is employed as the measure of medium-run effectiveness. A temperature increase of this magnitude by mid-century would represent a dramatic departure from historical trends -- a rate of increase equal to roughly 0.3°C per decade, compared with a rise of 0.04°C per decade during the past 100 years. Over the long run, the absolute temperature rise in 2100 is used as the measure of effectiveness. Rough estimates of technical constraints, costs, and the need for political cooperation are used to judge feasibility.

BASELINE TRENDS

We developed the Mid-range Baseline scenario as a "best guess" of future energy patterns. Under this scenario, atmospheric CO_2 levels would reach 590 ppm, or double pre-industrial levels, by 2060, and a 2°C temperature rise would occur around 2040. By 2100, global warming would approach 5°C. These estimates are particularly sensitive to (1) the assumed temperature response to a doubling of CO_2, and (2) the rate of increase of greenhouse gases other than CO_2 (i.e., methane, nitrous oxide, and chlorofluorocarbons). By varying these factors within reasonable ranges, the projected date of a 2°C warming shifts from roughly 2015 to 2095. In direct contrast, changes in the projected costs of alternative fuels or in fuel users' behavior (i.e., the degree of conservation in response to rising energy prices and other factors) has almost no effect on the estimated timing of a 2°C rise in temperature. Specifically, scenarios reflecting significant reductions in the future cost of nuclear power and renewable energy, increased conservation, and expanded electrification have little influence on the date of a 2°C warming, and only a minor effect on the temperature rise in 2100 (5-10 percent). Similarly, significant reductions in the baseline costs of shale oil or synfuels fail to accelerate a projected 2°C warming, and estimated temperature in 2100 increases by less than 5 percent. These findings attest to the substantial momentum built into temperature trends, due to the effect of other greenhouse gases and to the difficulty in changing fuel-use patterns.

SUMMARY OF FINDINGS

Our analysis of energy and nonenergy policies to slow or limit a global warming produced the following results:

Only One of the Energy Policies Significantly Postpones a 2°C Warming

- Worldwide taxes of up to 300% of the cost of fossil fuels (applied proportionately based on CO_2 emissions from each fuel) would delay a 2°C warming only about 5 years beyond 2040.
- Fossil fuel taxes applied to just certain countries or applied at a 100% rate would not affect the timing of of a 2°C rise.
- A ban on synfuels and shale oil would delay a 2°C warming by only 5 years.
- Only a ban on coal instituted by 2000, would effectively slow the rate of temperature change and delay a 2°C change until 2055. A ban on both coal and shale oil would delay it an additional 10 years -- until 2065.

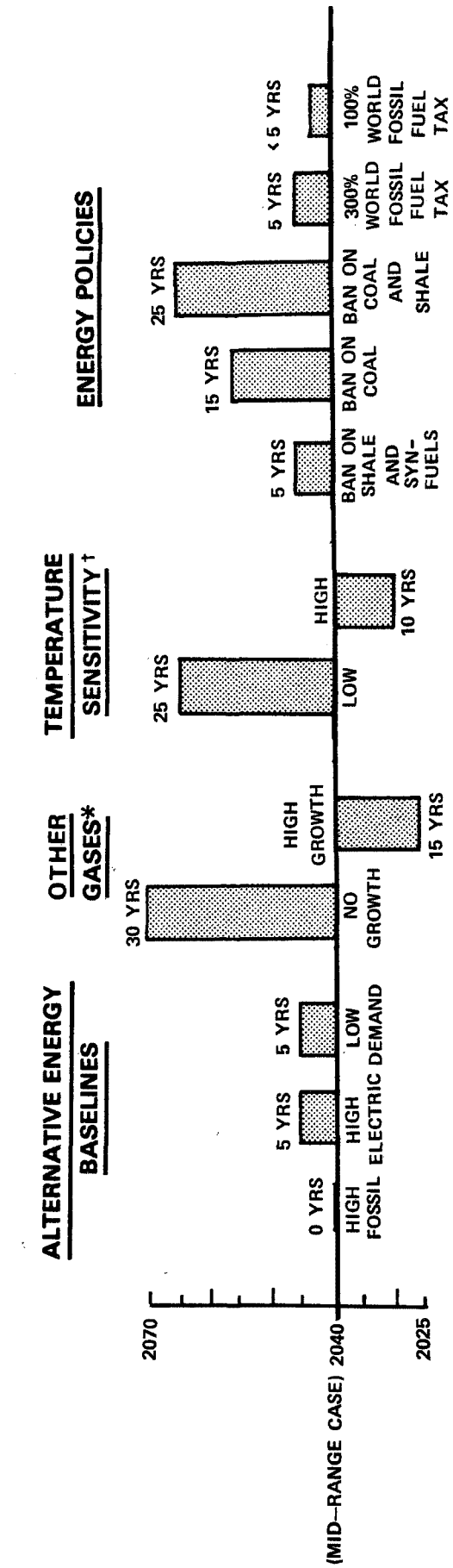
Major Uncertainties Include Growth of Other Greenhouse Gases and Temperature Sensitivity of the Atmosphere, but Not Baseline Energy Scenarios

- Uncertainties concerning the rate of growth of other greenhouse gases could advance the date of a 2°C warming by 15 years or delay it by 30 years.
- The plausible range of sensitivity of the atmosphere to increases in greenhouse gases creates a 35-year band of uncertainty around the projected year (2040) for a 2°C warming.
- In contrast, alternative energy futures, including significant shifts in the relative costs of fuels, changes in energy demand, and reduced economic growth, cause only minor (i.e., five years or less) changes in the date of a 2°C warming.

These findings are illustrated in the following chart. Each bar represents the number of years the 2°C date is delayed (bar above line) or advanced (bar below line), compared with the Mid-range Baseline projections.

CHANGES IN THE DATE OF A 2°C WARMING

(PROJECTED DATE IN MID-RANGE BASELINE: 2040)



*REFERS TO GREENHOUSE GASES OTHER THAN CO_2: NITROUS OXIDE, METHANE, AND CHLOROFLUOROCARBONS.

†REFERS TO THE TEMPERATURE RISE IN RESPONSE TO A GIVEN INCREASE IN GREENHOUSE GASES ONCE AN EQUILIBRIUM HAS BEEN REACHED.

Bans on Coal and Shale Oil Are Most Effective in Reducing Temperature Increases in 2100

- A worldwide ban on coal (and thus coal-derived synfuels) instituted by 2000 would reduce temperature change by 30% (from 5°C to 3.5°C).
- Together, a ban on shale oil and coal would reduce the projected warming in 2100 from 5°C to 2.5°C.
- Bans on shale oil alone or synfuels alone would be less effective.
- A 100% worldwide tax would reduce warming by less than 1.0°C in 2100.

A Ban on Coal Seems Economically and Politically Infeasibile

- Though detailed estimates of total costs of a ban on coal were beyond the scope of this study, initial approximations based only on asset losses and increases in prices of alternative fuels suggest that a coal ban is economically infeasible.
- A worldwide ban on coal also appears to be politically infeasible. Because the burden would be unevenly distributed (e.g., most of the world's coal is concentrated in only three nations, and use of coal varies dramatically between developed and developing nations), worldwide cooperation required to ban coal is unlikely.

At Best, Nonenergy Options to Limit Global Warming Are Highly Speculative

- Scrubbing CO_2 emissions from power plants is of limited effectiveness and prohibitively expensive.
- Capturing ambient CO_2 through massive forestation would place too great a burden on land, fertilizer, and irrigation requirements.
- In theory, adding SO_2 to the stratosphere might counterbalance the greenhouse warming effect, but at great cost. Moreover, the effectiveness and potential adverse environmental consequences of this proposal require much additional research.

IMPLICATIONS OF FINDINGS

The implications of our findings point to action directed in the following three areas:

Accelerate and Expand Research on Improving Our Ability to Adapt to a Warmer Climate -- This research should focus on enhancing the positive and minimizing the negative aspects of a greenhouse warming. It should also address problems likely to occur during the transitional stage when social and economic systems are adapted to the consequences of increased CO_2 and temperature. A key element of this research must be developing regional climate scenarios that can be used to evaluate the costs and benefits associated with possible changes in climate and that can serve as a baseline against which possible adaptive actions can be evaluated.

Narrow Uncertainties About the Future Effects Greenhouse Gases Other Than CO_2 -- Research relating to other greenhouse gases should focus on developing a better understanding of the natural and man-made sources and sinks of these gases, of their interactions with other atmospheric gases, (especially their effects on atmospheric ozone), and of possible strategies to mitigate their influence on future global warming.

Reducing Uncertainty About the Thermal Sensitivity of the Atmosphere -- Narrowing the range of uncertainty regarding the temperature sensitivity of the atmosphere to increases in greenhouse gases will depend on expanded modeling efforts. Cloud formation and ocean systems must be more realistically represented in climate models, and our ability to use these models in predicting transient warming effects must be improved.

Our analysis underscores the need to reduce remaining scientific uncertainties as quickly as possible. Substantial increases in global warming may occur sooner than most of us would like to believe. In the absence of growing international consensus on this subject, it is extremely unlikely that any substantial actions to reduce CO_2 emissions could or would be taken unilaterally. Adaptive strategies undertaken by individual countries appear to be a better bet. But for these strategies to succeed, much more precise and detailed information will be needed on the timing and regionally disaggregated consequences of a global warming.

Exhibit S4

Changing Climate

Report of the Carbon Dioxide Assessment Committee

Board on Atmospheric Sciences and Climate
Commission on Physical Sciences, Mathematics, and Resources
National Research Council

NATIONAL ACADEMY PRESS
Washington, D.C. 1983

National Academy Press • 2101 Constitution Avenue NW • Washington DC 20418

NOTICE The project that is the subject of this report was approved by the Governing Board of the National Research Council, whose members are drawn from the councils of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. The members of the Committee responsible for the report were chosen for their special competences and with regard for appropriate balance.

This report has been reviewed by a group other than the authors according to procedures approved by a Report Review Committee consisting of members of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

The National Research Council was established by the National Academy of Sciences in 1916 to associate the broad community of science and technology with the Academy's purposes of furthering knowledge and of advising the federal government. The Council operates in accordance with general policies determined by the Academy under the authority of its congressional charter of 1863, which establishes the Academy as a private, nonprofit, self-governing membership corporation. The Council has become the principal operating agency of both the National Academy of Sciences and the National Academy of Engineering in the conduct of their services to the government, the public, and the scientific and engineering communities. It is administered jointly by both Academies and the Institute of Medicine. The National Academy of Engineering and the Institute of Medicine were established in 1964 and 1970, respectively, under the charter of the National Academy of Sciences.

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Contents

Executive Summary

1. Carbon dioxide (CO_2) is one of the gases of the atmosphere important in determining the Earth's climate. In the last generation the CO_2 concentration in the atmosphere has increased from 315 parts per million (ppm) by volume to over 340 ppmv. (Chapters 3, 4)

2. The current increase is primarily attributable to burning of coal, oil, and gas; future increases will similarly be determined primarily by fossil fuel combustion. Deforestation and land use changes have probably been important factors in atmospheric CO_2 increase over the past 100 years. (Chapters 2, 3)

3. Projections of future fossil fuel use and atmospheric concentrations of CO_2 embody large uncertainties that are to a considerable extent irreducible. The dominant sources of uncertainty stem from our inability to predict future economic and technological developments that will determine the global demand for energy and the attractiveness of fossil fuels. We think it most likely that atmospheric CO_2 concentration will pass 600 ppm (the nominal doubling of the recent level) in the third quarter of the next century. We also estimate that there is about a 1-in-20 chance that doubling will occur before 2035. (Chapters 2, 3)

4. If deforestation has been a large net source of CO_2 in recent decades, then the models that we are using to project future atmospheric concentrations are seriously flawed; the fraction of man-made CO_2 remaining airborne must then be lower, and CO_2 increase will probably occur more slowly than it otherwise would. (Chapter 3)

5. Estimates of effects of increasing CO_2 on climate also embody significant uncertainties, stemming from fundamental gaps in our understanding of physical processes, notably the processes that determine cloudiness and the long-term interactions between atmosphere and ocean. (Chapter 4)

6. Several other gases besides CO_2 that can affect the climate appear to be increasing as a result of human activities; if we project

increases in all these gases, climate changes can be expected significantly earlier than if we consider CO_2 alone. (Chapter 4)

7. From climate model simulations of increased CO_2 we conclude with considerable confidence that there would be global mean temperature increase. With much less confidence we infer other more specific regional climate changes, including relatively greater polar temperature increase and summer dryness in middle latitudes (e.g., the latitudes of the United States). (Chapter 4)

8. Results of most numerical model experiments suggest that a doubling of CO_2, if maintained indefinitely, would cause a global surface air warming of between 1.5°C and 4.5°C. The climate record of the past hundred years and our estimates of CO_2 changes over that period suggest that values in the lower half of this range are more probable. (Chapters 4, 5)

9. By itself, CO_2 increase should have beneficial effects on photosynthesis and water-use efficiency of agricultural plants, especially when other factors are not already limiting growth. (Chapters 3, 6)

10. Analysis of the effects of a warmer and drier climate on rainfed agriculture in the United States suggests that over the next couple of decades negative effects of climate change and positive effects from CO_2 fertilization both will be modest and will approximately balance. The outlook is more troubling for agriculture in lands dependent on irrigation. Longer-term impacts are highly uncertain and will depend strongly on the outcome of future agricultural research, development, and technology. (Chapter 6)

11. Changes in temperature and rainfall may be amplified as changes in the annual discharge of rivers. For example, a 2°C warming could severely reduce the quantity and quality of water resources in the western United States. (Chapter 7)

12. (a) If a global warming of about 3 or 4°C were to occur over the next hundred years, it is likely that there would be a global sea-level rise of about 70 cm, in comparison with the rise of about 15 cm over the last century. More rapid rates could occur subsequently, if the West Antarctic Ice Sheet should begin to disintegrate. (Chapter 8)

(b) Such a warming might also bring about changes in Arctic ice cover, with perhaps a disappearance of the summer ice pack and associated changes in high-latitude weather and climate. (Annex 1)

13. Because of their large uncertainties and significant implications, it is important to confirm the various predictions of climate changes at the earliest possible time and to achieve greater precision. This can best be done through carefully designed monitoring programs of long duration emphasizing the ensemble of variables believed to influence climate or to reflect strongly the effect of CO_2. (Chapter 5)

14. The social and economic implications of even the most carefully constructed and detailed scenarios of CO_2 increase and climatic consequences are largely unpredictable. However, a number of inferences seem clear:

(a) Rapid climate change will take its place among the numerous other changes that will influence the course of society, and these other changes may largely determine whether the climatic impacts of greenhouse gases are a serious problem.

(b) As a human experience, climate change is far from novel; large numbers of people now live in almost all climatic zones and move easily between them.

(c) Nevertheless, we are deeply concerned about environmental changes of this magnitude; man-made emissions of greenhouse gases promise to impose a warming of unusual dimensions on a global climate that is already unusually warm. We may get into trouble in ways that we have barely imagined, like release of methane from marine sediments, or not yet discovered.

(d) Climate changes, their benefits and damages, and the benefits and damages of the actions that bring them about will fall unequally on the world's people and nations. Because of real or perceived inequities, climate change could well be a divisive rather than a unifying factor in world affairs. (Chapter 9)

15. Viewed in terms of energy, global pollution, and worldwide environmental damage, the "CO_2 problem" appears intractable. Viewed as a problem of changes in local environmental factors--rainfall, river flow, sea level--the myriad of individual incremental problems take their place among the other stresses to which nations and individuals adapt. It is important to be flexible both in definition of the issue, which is really more climate change than CO_2, and in maintaining a variety of alternative options for response. (Chapter 9)

16. Given the extent and character of the uncertainty in each segment of the argument--emissions, concentrations, climatic effects, environmental and societal impacts--a balanced program of research, both basic and applied, is called for, with appropriate attention to more significant uncertainties and potentially more serious problems. (Chapter 1)

17. Even very forceful policies adopted soon with regard to energy and land use are unlikely to prevent some modification of climate as a result of human activities. Thus, it is prudent to undertake applied research and development--and to consider some adjustments--in regard to activities, like irrigated agriculture, that are vulnerable to climate change. (Chapters 1, 9)

18. Assessment of the CO_2 issue should be regarded as an iterative process that emphasizes carry over of learning from one effort to the next. (Chapter 1)

19. Successful response to widespread environmental change will be facilitated by the existence of an international network of scientists

conversant with the issues and of broad international consensus on facts and their reliability. Sound international research and assessment efforts can turn up new solutions and lubricate the processes of change and adaptation. (Chapter 1)

20. With respect to specific recommendations on research, development, or use of different energy systems, the Committee offers three levels of recommendations. These are based on the general view that, if other things are equal, policy should lean away from the injection of greenhouse gases into the atmosphere.

(a) Research and development should give some priority to the enhancement of long-term energy options that are not based on combustion of fossil fuels. (Chapters 1, 2, 9)

(b) We do not believe, however, that the evidence at hand about CO_2-induced climate change would support steps to change current fuel-use patterns away from fossil fuels. Such steps may be necessary or desirable at some time in the future, and we should certainly think carefully about costs and benefits of such steps; but the very near future would be better spent improving our knowledge (including knowledge of energy and other processes leading to creation of greenhouse gases) than in changing fuel mix or use. (Chapters 1, 2, 9)

(c) It is possible that steps to control costly climate change should start with non-CO_2 greenhouse gases. While our studies focused chiefly on CO_2, fragmentary evidence suggests that non-CO_2 greenhouse gases may be as important a set of determinants as CO_2 itself. While the costs of climate change from non-CO_2 gases would be the same as those from CO_2, the control of emissions of some non-CO_2 gases may be more easily achieved. (Chapters 1, 2, 4, 9)

21. Finally, we wish to emphasize that the CO_2 issue interacts with many other issues, and it can be seen as a healthy stimulus for acquiring knowledge and skills useful in the treatment of numerous other important problems. (Chapter 1)

suggest design changes for overland vehicles, construction equipment, pipelines, and buildings. On a different plane, concern arises about possible loss of habitats and the conservation of nature; polar regions are among the wilder and more pristine environments remaining.

In contrast to polar and sea-level change, not much consideration has been given by those who study increasing CO_2 and climate change to any possible direct effect on human health or the animal population from CO_2 in the air we breathe. The natural a priori concern with the health effects of a doubling or quadrupling of an important gas in the air we breathe--the substance that actually regulates our breathing rate--is relieved by the observation that for as long as people have been living indoors, not to mention burning fuel to heat themselves, they have been spending large parts of their lives--virtually entire lives in the case of people who work indoors and travel in enclosed vehicles--in an atmosphere of elevated CO_2. Doubling or even quadrupling CO_2 would still present a school child with a lesser concentration during outdoor recess than the child faces in today's average classroom.

There is, furthermore, no documented evidence that CO_2 concentrations of five or ten times the normal outdoor concentration damage human or animal tissue, affect metabolism, or interfere with the nervous system. Nor is there a theoretical basis for expecting direct effects on health from the kinds of CO_2 concentrations anticipated.

But even though this answer is reassuring, the question has to be faced. It will occur to people who hear about changes in the atmosphere that their grandchildren are going to breathe. And experiments have not been carried out with either people or large animals whose whole lives, including prenatal life, were spent in an environment that never contained less than, say, 700 ppmv of CO_2. So the question deserves attention, even though there is no known cause for alarm.

Probably more serious is the effect of elevated temperatures on health and welfare. If a 3 or 4°C increase in average temperatures occurs, as might be expected in different parts of the United States with a CO_2 doubling, extreme summer temperatures in warm years might rise by an equal amount. Excess human death and illness are already characteristic of summer "hot spells," and these might be worsened by much higher extreme summer temperatures. And, climatic shifts may change the habitats of disease vectors or the hosts for such vectors.

1.3.3 The Problem of Unease about Changes of This Magnitude

Enveloping our specific and more speculative concerns about impacts of climatic change on water resources, sea level, and other areas discussed is a profound uneasiness about inducing environmental changes of the magnitude envisaged with major increases in atmospheric CO_2 and other greenhouse gases.

To establish a context, consider, for example, the most frequently quoted index--change in global average surface temperature. This crude measure of climate tells us little about what temperature change to expect for specific regions and nothing about the type of climate that

would be experienced. Global average surface temperature has come to such prominence in large part because it represents a relative measure of CO_2 effects among climate models. Indeed, for many models it is the only result with much scientific validity. Nevertheless, changes in average surface temperature may suggest well the nature of our unease.

Increasing CO_2 is expected to produce changes in global mean temperature that, in both magnitude and rate of change, have few or no precedents in the Earth's recent history. Consider the ranges of temperature experienced in various periods in the past (Figure 1.14). A range of less than a degree was experienced in the last century, less than 2°C in the last thousand years, and only 6 or 7°C in the last million years. The development of civilization since the retreat of the last glaciation has taken place in a global climate never more than 1°C warmer or colder than today's. Despite the modest decline of time-averaged global-mean temperatures since the 1940s, we are still in an unusually warm period in the Earth's history. Indeed, according to one source (Jones, 1981), 1981 was the warmest year on record. Thus, the temperature increases of a couple of degrees or so projected for the next century are not only large in historical terms but also carry our planet into largely unknown territory. Increasing CO_2 promises to impose a warming of unusual magnitude on a global climate that is already unusually warm.

Furthermore, the question of threshold responses arises. It is possible that a change in the central tendency of climate will come about smoothly and gradually. It is also possible that discontinuities will occur. For example, Lorenz (1968) and others have suggested the possibility of more than one climatic equilibrium.

As Schelling (Chapter 9) points out, our calm assessment of the CO_2 issue rests essentially on the "foreseeable" consequences of climatic change. Less well-seen aspects remain troubling. We have mentioned the possible release of methane clathrates from ocean sediments. We have also mentioned melting of the central Arctic sea ice. Disappearance of the permanent Arctic ice would result in a marked increase in the thermal asymmetry of the planet, with only one pole still glaciated. Such asymmetric conditions could produce further, unanticipated climatic changes (Flohn, 1982). Warming amplified at high-latitude regions could also affect major features of the oceanic circulation, and these too could lead to unexpectedly different climatic conditions, as well as changes in the capacity of the oceans to absorb CO_2. At the level of ecosystems, surprising changes may also result from climatic shifts.

We are not complacent about global-average temperature changes that sound small; very serious shifts in the environment could well be implied. There is probably some positive association between what we can predict and what we can accommodate. To predict requires some understanding, and that same understanding may help us to overcome the problem. What we have not predicted, what we have overlooked, may be what we least understand. And when it finally forces itself on our attention, it may appear harder to adapt to, precisely because it is not familiar and well understood. There may yet be surprises. Antici-

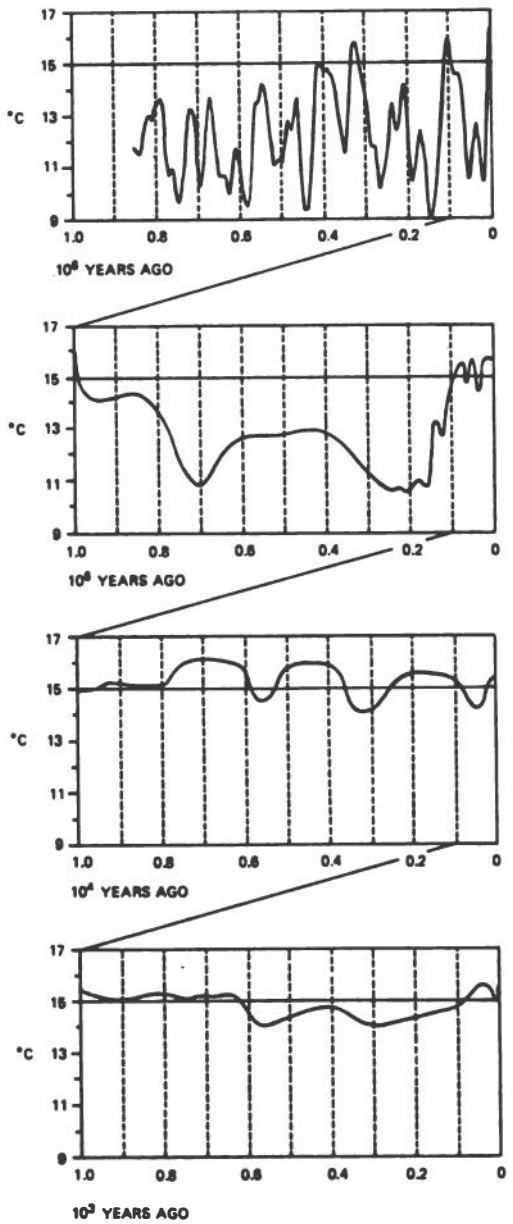

FIGURE 1.14 An approximate temperature history of the northern hemisphere for the last 850,000 years. The panels are at the same vertical scale. The top panel shows the past million years, the second panel amplifies the past 100,000 years, the third panel the past 10,000 years, and the bottom panel the past 1000 years. The horizontal line at 15°C is included simply for reference. Considerable uncertainty attaches to the record in each panel, and the temperature records are derived from a variety of sources, for example, ice volume, as well as more direct data. Spatial and temporal (e.g., seasonal) variation of data sources is also considerable. From Clark (1982). Original data from Matthews (1976), Mitchell (1979), and National Research Council (1975).

pating climate change is a new art. In our calm assessment we may be overlooking things that should alarm us.

At the same time, one might observe that--barring the kind of surprises mentioned above--the climate changes under consideration are not large in comparison with the climate changes individuals and social groups have undergone historically as a result of migration. Table 1.10 shows U.S. population for 1800, 1860, 1920, and 1980, distributed according to the climatic zones in Figure 1.15. These data have been transformed into a series of maps of the United States in which the areas of our various climatic zones are drawn so as to be proportionate to their populations at various times (see Chapter 9). The maps seemingly depict massive climate change; formerly empty, thus small, climatic zones become heavily populated and grow large. But it is not that deserts have expanded or that the climate has changed from permafrost to rain forest, or from prairie to Mediterranean west coast, or to places where it gets cold but does not quite freeze from where it got a little colder and did freeze. People have moved, and to all climates, to places of enormous extremes like the Dakotas and places of little change like Puerto Rico. People have moved from the seacoast to the prairie, from the snows to the Sun Belt.

Not only have people moved, but they have taken with them their horses, dogs, children, technologies, crops, livestock, and hobbies. It is extraordinary how adaptable people can be in moving to drastically

TABLE 1.10 U.S. Population by Climatic Zone[a,b,c]

Climatic zone[c]	Description	Population 1800	1860	1920	1980
Aw	Tropical wet and dry (Savannah)	0	2,996 (1)	129,741 (1)	2,793,140 (1)
BS and BS_k	Semiarid and steppe	0	64,018 (1)	4,291,664 (4)	21,000,465 (9)
BW_h	Tropical and subtropical desert	0	28,029 (1)	743,263 (1)	4,955,742 (2)
Caf	Humid subtropical (warm summer)	2,034,536 (42)	9,426,517 (32)	32,360,561 (29)	71,932,014 (32)
Cb	Marine (cool summer)	0	39,246 (1)	1,795,406 (2)	4,447,811 (2)
Cs	Dry-summer subtropical (Mediterranean)	0	202,420 (1)	1,636,597 (2)	8,675,763 (4)
Daf	Humid continental (warm summer)	2,348,030 (49)	16,074,866 (54)	59,811,474 (54)	90,882,262 (40)
Dbf	Humid continental (cool summer)	435,665 (9)	3,586,555 (12)	9,394,792 (8)	13,710,636 (6)
H	Undifferentiated highlands	0	184,896 (1)	1,559,963 (1)	9,147,733 (4)

[a]Source: U.S. Census Bureau, 1800, 1860, 1920, 1980. Data compiled by Clark University Cartographic Service.
[b]Figures in parentheses are percentage of total population in that climate zone.
[c]Climatic zones shown in Figure 1.15.

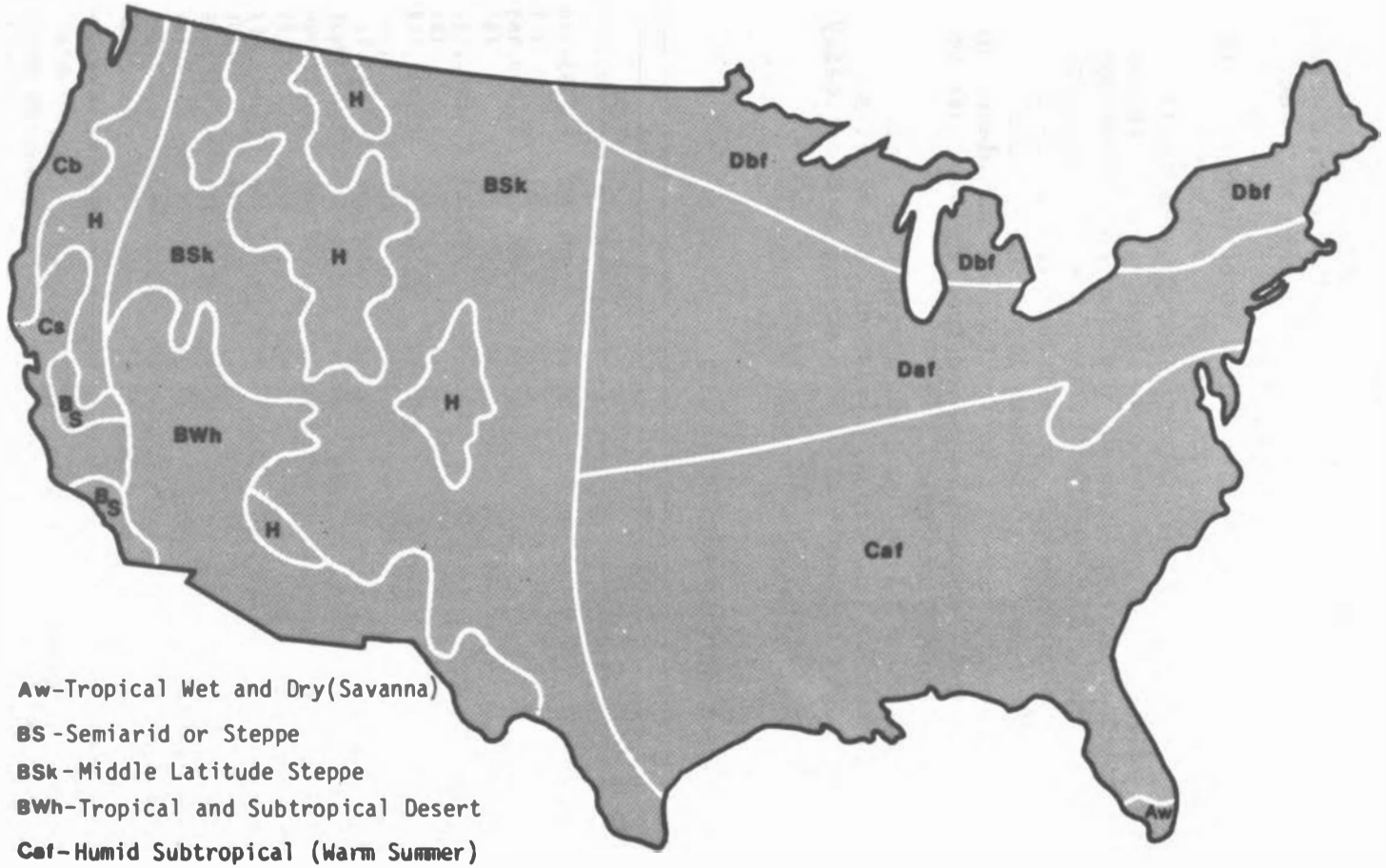

FIGURE 1.15 Climatic zones of the United States. Prepared by Clark University Cartographic Service.

Exhibit S5

Attorney General Eric T. Schneiderman's remarks as prepared for delivery on a panel titled:

"Leading by Example: State and Local Governments as Catalysts for Action on Climate Change" at an event hosted by the New York City Bar Association

September 22, 2014

Thank you. It's a pleasure to be here with you today. Thank you Mike [Mahoney] for that kind introduction, and for your commitment and leadership as the Chair of the New York City Bar's Environmental Law Committee. I do want to thank the New York City Bar Association for hosting us here and co-sponsoring this event, along with the Sabin Center for Climate Change Law at Columbia University. Both the City Bar and Sabin Center are hubs of creative legal thinking on how we can address climate change, and I appreciate their expertise on the issue.

I'm grateful to our moderator, Michael Gerrard, who is the director of the Sabin Center, and all of our distinguished panelists:

Ken Alex, Senior Policy Advisor to Governor Jerry Brown and the Director of the California Office of Planning and Research;

Laurie Burt, President of Laurie Burt, LLC in Boston and the former Commissioner of the Massachusetts' Department of Environmental Protection;

Dan Zarrilli, Director of the Mayor's Office of Recovery and Resiliency here in New York City; and

Matthew Appelbaum, the Mayor of Boulder, Colorado.

State and local governments are really on the front lines of the climate crisis, both in dealing with immediate, local impact of changes in the weather that are already hitting us, and in providing leadership in the effort to reduce our greenhouse gas emissions and slow the pace of climate change.

States and cities have been forced in to this role by the failure of Congress to act, which I'm going to talk about today. Or I should say some states and cities, like those you see represented here today, have taken on the responsibility of leading and finding solutions. The leaders of others continue to bury their heads in the sand, or actively fight efforts to solve the climate crisis. So I am grateful to our panelists, both for being on the right side of history as policy makers, and for being willing to share their expertise and experience with us today.

Finally, I want to thank all of you for being here, for taking the time to focus on this and for your commitment and engagement in the cause of protecting our planet. I am encouraged by the fact that this event has brought together legal experts and activists, because while the evidence and the technical solutions for dealing with climate change may come to us from scientists and engineers, it will be public officials, lawyers and activists who will determine how – or if – those solutions get implemented.

We need to be creative, both in reforming the law and using the laws we already have to address climate change. We are fortunate in that respect to have Michael Gerrard with us, who is one of the foremost experts in rethinking how we can shape and apply the law to address climate change. Equally important though, we need to change public awareness, and transform public consciousness on this critical issue. To do that, we all need to be activists. This is certainly not a new fight, but I believe that we are facing a defining moment in this effort.

The federal government's National Climate Assessment that was released in May and the report of the U.N.'s Intergovernmental Panel on Climate Change, issued in March, really framed this very important moment. The U.N. report warned that without immediate, concerted action, quote: "It is clear that in the future, climate will be warmer, sea levels will rise, global rainfall patterns will change and ecosystems will be affected."

I would submit to you that we all need to ratchet up our creativity and our outreach to make it clear for everyone to understand, and easy for everyone to understand, that climate change is already affecting each of us, it's affecting our communities, it's affecting our friends and family, and that it will get worse very quickly if we do not mobilize to demand action both from the government and from leaders in the private sector.

Yesterday, I was proud to join with tens of thousands of activists from New York and around the world at the People's Climate March. I'm sure many of you were there as well. It was truly an inspiring demonstration of the popular demand for world leaders to take meaningful action at the U.N. Climate Summit. And I hope you're all energized because we have a long way to go.

For every person who was there at that march yesterday, there are many more people who haven't really accepted that climate change is a clear and present danger to them and their family and their community. And that is what it is going to take. Of course there are people who don't even accept that climate change is real, and that human activity is causing it, and we certainly have to keep challenging those people. But there's a much larger group that kind of passively accepts that it's real, but who are still in denial about what that means for them. And tens of millions of Americans are still in denial about the imperative to act.

To break through to those people, we all need to ramp up our creativity and bring home to them in a much more personal way the issue of climate change and the disruption of our weather systems. We're not going to see real action from politicians and business leaders until we create a much broader shift in public consciousness – to not only accept the reality of climate change, but to feel urgency to do something about, and to feel compelled to demand change.

As a step toward personalizing the issue and focusing public awareness, my office recently released a report on the frequency and intensity of extreme rainstorms in communities all across New York State. We have some copies here, and the report is of course posted on our OAG website.

We can't scientifically attribute any of the particular severe weather events cited in our report -- and there's a long list -- to climate change. But, we know that the pattern and impact of more frequent, and more extreme, rainfall in our state are undeniable.

The federal government's own data make clear beyond any doubt that the country is experiencing more frequent and violent bad weather. Yet, the unprecedented gridlock in Congress is preventing meaningful leadership on this critical issue from Washington.

On the international stage, negotiations too often resemble a global game of chicken, with the major powers insisting that they will keep careening toward the climate cliff unless someone else acts first. Ultimately, the leaders of each nation will act—or not—in response to the internal political imperatives in their own country. We have the responsibility to create that political imperative in our own country, and we're going to have to do it from the bottom up.

And this is the first point I want to emphasize today. Ladies and gentlemen, we together face the challenge of mobilizing the American people to action on climate change – without a functional United States Congress.

Consistent with my views on public health and diet, I am not sugar-coating things in these remarks.

The problems in Washington, believe me, come as no surprise to me and the lawyers in my office. From failing to close the gun show loophole in order to ensure background checks for firearms purchases – when 90% of the American public favor background checks – to neglecting the scourge of prescription drug abuse that has devastated so many American families, to even doing something as basic as helping police departments pay for bulletproof vests for their officers, in the last few years the federal government has simply failed to do what is necessary for the American people.

So, ladies and gentlemen, it falls to those of us in state government, and those of us in advocacy organizations – more than it has at any point in my lifetime – to fill this void.

In each of the examples I just cited, state government, as represented by my office, has been able to step up to do what needed to be done, using very creative approaches to protect New Yorkers. I have seen this over and over again since I became Attorney General in January 2011, and was faced with the fact that the federal government was not really that interested in going after the banks that had blown up the American economy, and I had to so some serious work to get that to happen.

I am proud of the fact that in New York State we have found innovative ways to take the lead when Washington would or could not. There are other states around the country that are being creative as well, and you'll hear more about that in a moment from our distinguished panelists, but it is important that we are all clear about the depth of this problem.

Let me use the last example I just cited. There was a federal program that for over 15 years was reimbursing police departments around the country for half the cost of bulletproof vests, so their officers would not be wounded or killed. It was a very inexpensive program. It enjoyed broad bipartisan support.

Things are so bad in Washington that the funding for this program got killed. There was a bill to refinance it, and some ideologue said, "Well, we don't think the federal government should be involved in local law enforcement," and as a result, around the United States, there are police officers who will be wounded or killed because they don't have bulletproof vests.

This is a disgrace. I can't imagine any member of the House or Senate actually standing up and saying, "No, I'm opposed to this program."

In New York, we stepped in, and my office is using forfeiture funds from criminal enterprises to reimburse the money for New York State police departments. That's not happening in the rest of the country. That's how bad it is in Washington.

So we are dealing with the largest challenge we as environmentalists have yet had to face, the threat of the changing climate that is endangering every community across the country, with a fundamentally damaged federal government.

But while this is a very serious problem, the good news is that even as we work to fix things in Washington, there is a lot we can do at the state level, and especially when we build coalitions with other states. California and Massachusetts have been two of our staunchest allies in these efforts, so I am very happy that they are represented on our panel this morning. And with the

assistance and support of thousands of activists, we have already achieved many important victories at the state level.

Let me remind you of a few of them.

In 2012, my office successfully defended the Regional Greenhouse Gas Initiative or "Reggie" – a multi-state agreement that puts a price on carbon pollution in order to reduce emissions. It was under attack by a group called Americans for Prosperity, which is supported by David and Charles Koch – who famously made their fortune in the oil industry. They are now famous for some other things – but let's not get into that.

New York is also leading a coalition of seven states pressing EPA to follow the mandates of Clean Air Act and address methane emissions from the oil and gas industry – a huge issue that requires immediate action. As a direct result of our efforts, EPA is now developing a national strategy to reduce methane emissions.

We led a coalition of 15 states and New York City in filing a briefing with the U.S. Supreme Court successfully arguing that both the EPA and states have the authority to regulate climate change pollution from new or modified power plants under the Clean Air Act. Since Congress refuses to take even modest steps to address climate change, it is critical that states and the EPA be allowed to move forward under the existing authority of the Clean Air Act. In June the Supreme Court issued a decision that largely agreed with our argument and substantially upheld EPA and state authority to limit emissions of climate change pollution by major stationary sources.

Finally, earlier this month, I led a coalition of 10 states, the District of Columbia and New York City that is intervening in a lawsuit to defend a 2010 settlement between the EPA and New York State that requires the EPA to establish greenhouse gas emissions standards for fossil fuel-fired electric generating facilities. The settlement is being challenged by a coalition of 12 other state attorneys general, mostly from coal-producing states.

This is increasingly a pattern that I am observing – that I am, along with a few other aggressive AGs, leading groups of states that are fighting with other states over whether we will have effective environmental regulation, whether or not we're going to address the issues associated with climate change. And in the absence of strong action from Congress, that's a pattern that will continue, and I would urge all of you to pay attention to who is stepping up to the plate, who is providing leadership and who is not, because there's a wide variety of, shall we say, both quality and commitment as you look at different states around the country.

Now, I want to speak about the two things – there are two distinct things that in my office we are trying to do to deal with the issue of climate change, and the report I mentioned before is a step toward trying to accomplish these things.

I wrote an article a number of years ago about two distinct aspects of political work – transactional politics and transformational politics. Transactional politics involves the day-to-day work of bringing lawsuits or making deals to pass legislation. Much of the work I've talked about so far this morning was transactional work.

But transactional politics can get you only so far. People have to agree on the conceptual framework of a problem before they can take action. And that's where transformational political work comes in. And it is something that has been neglected by a lot of folks who fought for progressive causes over the last few decades, while our opponents have done a lot of work to change the dialogue, to change the way people think about issues. They have been very effective at convincing people that collective action is sort of anti-American and that the philosophy of our country at the outset was "you're on your own." "Every man and woman for themselves."

They are wrong, of course, but their transformational work has eroded the collaborative vision of the founders, and we need to respond with our own transformational work.

This involves opening people's minds to better possibilities and, most fundamentally, rooting out assumptions about politics or economics or human nature that prevent us from embracing policies that will make our lives better.

It means changing the conversation – and in New York, we are uniquely equipped to do that. We are the nation's media center. We must lead by example with our initiatives, but we must also lead by our conversation-changing communications about climate change.

This is not only about challenging those who refuse to acknowledge that climate change is real – though that is extremely important. The transformational work before us is really about shifting the way people think about our basic sense of the climate, the planet and how we address collective challenges related to the environment. This comes back to where I started.

To most New Yorkers, climate change is an abstract, slow-moving problem. Gradually rising sea levels are very hard for people to relate to, and it is tough – if you are a regular, stressed-out, over-caffeinated New Yorker – to see how you can do anything about this problem, even if you sort of acknowledge that a real problem it is.

So it is up to us to do the transformational work needed to enable everyone to clearly see that climate change is real, that all of us are feeling its effects right now, and that we can and must address it together.

When Hurricane Sandy hit here, we were woefully unprepared. Almost 2 million utility customers directly suffered power outages. Hospitals were shut down. Sewage treatment plants could not operate, so billions of gallons of sewage flowed into our waterways. And tens of thousands of New York families remained without power for weeks after the storm. In the New York City metropolitan area, we believe that more than $50 billion in economic activity was lost due to power outages and other infrastructure failures in the wake of the storm. These are problems were not just caused by the storm itself, but by the weaknesses in our system for handling a storm of this magnitude.

It gets worse.

Last January, our major utility, Con Ed, applied to the Public Service Commission for $1 billion to repair and strengthen its energy systems. This was after Sandy— but it based its construction designs on old weather data – outdated data about what we could expect in terms of the extreme that we're facing. Con Ed's plan did not consider the impact of climate change, including stronger and more frequent storms, surges in sea levels and heat waves. They were looking backward when they should have been looking forward to protect their customers and their communities in a future of more extreme weather.

So my office intervened, and along with other allies, we changed the conversation, and focused attention on the real and increasing threat that climate change poses to our state's infrastructure. Following our intervention, the Public Service Commission required the utility to take more aggressive action to harden its system against the threat of severe coastal storms and rising sea levels, and to engage in an in-depth study of its systemic vulnerability to climate change. To its credit, con Edison is now on board with this new approach to utility planning that takes the reality of climate change into account.

That was a big step forward in preparing for the future. And we need to make sure that all utility providers in New York State are prepared to protect vital services from the severe weather that lies ahead.

This should be a no-brainer. It's the type of common-sense measure that should be required of every utility in the country.

But – and this comes back to my second fundamental point – the transformational aspect of this work I that it requires utilities to affirm that climate change is real and severely affecting our

communities today, and that they, as big, established corporate entities, publicly recognizing that fact. That is the transformational part of this. It moves us past the stage of debating climate change to the stage of saying, it's a reality – and there are concrete steps we have to take to deal with it.

Ladies and gentlemen, we need to step up these consciousness- and conversation-changing transformational work, to engage in multi-state, national and international advocacy, to focus public attention on the more powerful and frequent rainstorms, floods and other environmental challenges that are here now.

On a positive note, there is some evidence that the work we've been doing on this – and a lot of you have devoted a lot of hours, days, weeks and months to transforming the way people think about climate change – there is evidence that we are succeeding. A recent op-ed article in *The New York Times* by author Robert Jay Lifton – a New Yorker who refers to himself as a "historically minded psychiatrist" -- was titled The Climate Swerve.

In it, he wrote that he believes Americans may be undergoing a psychological shift – the climate swerve, as he puts it – and that a sense that we are being threatened by our climate is seeping into the consciousness. That swerve, he wrote, could provide, and I quote, "the psychological substrate for action on behalf of our vulnerable habitat and the human future."

That is psychiatrist language for transformational work that gets people to see an issue differently. But that's the point. The most interesting thing, if you want to step back and take a look at politics in the long term, is that the important issues are all about transformations in consciousness. The important issues are all about getting people to see things differently.

The civil rights movement did not succeed when LBJ signed the Civil Rights Act. It succeeded when white people and black people looked at each other and said, you know, we're basically the same. The old prejudices fell away internally. And you can see the transformation in consciousness about the equality of the LGBT community at an even faster rate over the last couple of decades.

So, changing consciousness is what we do in transformational politics, and on the issue of climate change, that's the work ahead of us. And that's what my office has tried to do in our own modest way with our report on the increase in intensity and frequency of extreme rainfall.

The point of our report is that the extreme weather we're experiencing – personally, here, now, and that our family and friends around the State of New York are experiencing – is a direct result of global warming trends that we have been watching for decades, but have yet to effectively address.

That's the work we are doing.

We owe it to the people of the Hudson Valley and the eastern Adirondacks, where Hurricane Irene – and this is all detailed in the report – dumped 11 inches of rain in 24 hours in 2011 – and who were deluged again a week later by the remnants of Tropical Storm Lee.

We owe it to the people on Long Island who last month were swamped with more than 13 inches of rain in a matter of hours. That's almost as much rain as Long Island gets in an entire summer – and that happened in a matter of hours.

We owe it to the people of the Catskills and the Capital District who in September 2012 got 7 ½ inches of rain in a matter of a few hours, flooding out homes and streets and closing businesses.

These are just a few examples from our report. It's important because we think it helps personalize and bring home the reality of climate change. People who were flooded out of their homes or had friends or family that experienced the storms discussed in our report – understand that something has gone wrong with the weather. They understand that there's something real, that something happened and it's now, it doesn't have to do with the melting of the ice shelf in the Arctic, it has to do with what's on Long Island. It has to do with what's happening in Albany. It has to do with what's happening in Western New York.

And it is up to us to take these real experiences – and connect them to the facts of climate change – and then connect them to the actions we need to take collectively to address it.

When we have these extreme weather events in New York, my job, and the job of all environmentalists, is to help send the message: This is climate change. This is it. You New Yorkers, all of you personally are seeing it in action. Join us as we try to take steps to correct it.

Ladies and gentlemen, it is up to us, to the advocates and the leaders of state and local governments, to provide leadership. We have to redouble our work to transform the conversation, and we must be more and more creative about how we carry and deliver this message.

Connecting events that New Yorkers still remember well to the science that explains it is a step in that direction. And if our report results in some concrete changes to prepare better for severe weather, that's good. But that is really just more transactional work. What we are trying to do today is to bring home the understanding that climate change is happening now in a personal way to millions of New Yorkers, so that they then can join the fight that you are all waging, join the fight to connect up the changes in weather with the reality of climate change and join the fight to take the actions we know we must take to deal with this credible threat.

Working together, working more and more creatively, we can – and we will – create a healthier and more environmentally sound world for ourselves and for future generations.

My office, the Office of the Attorney General of the State of New York, will always be your partner in this essential work to open people's eyes and to move them to take action on this most fundamental threat – that we face together.

Thank you very much.

Exhibit S6

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April 5, 2017

VIA E-MAIL ONLY

Adam E. Schulman
Attorney
Competitive Enterprise Institute
Adam.Schulman@cei.org

Re: Your Public Records Request

Dear Attorney Schulman:

I write in response to your public records request received on February 13, 2017 and made pursuant to the Massachusetts public records law, M.G.L. c. 66, § 10. You requested copies of the following records held by the Office of the Attorney General (AGO) "in so far as they relate to legal services in connection with investigations or pursuits of legal claims against any individual, company or group for allegedly misleading the public about the dangers of climate change or the viability of renewable energy resources:

1. Any retainer or engagement agreements or contracts entered into between the AG's [O]ffice and:
    1) Cohen Milstein Seller & Toll PLLC,
    2) Linda Singer, esq.,
    3) [T]he Pawa Law Group, PC,
    4) Matt Pawa, esq.,
    5) McKool Smith,
    6) Stanton LLP, and
    7) any other private law firm or lawyer.

2. Any invoices from any of the attorneys or firms above listed.

3. Any documents, including email correspondence, relating to the process of searching for, selecting or hiring any of the attorneys or firms above listed.

4. Any office policies or procedures for hiring non-governmental counsel.

5. Any computations, calculations, tallies or estimates of monies paid by the AG's [O]ffice to any of the attorneys or firms listed above.

6. Any computations, calculations, tallies, or estimates of AG [O]ffice [sic] staff hours and expenses expended in connection with investigations or pursuit of legal claims against any individual, company or group for allegedly misleading the public about the dangers of climate change or the viability of renewable energy resources.

7. Any record of reimbursements made to, or requested by, the following employees of the Massachusetts Attorney General's Office:
   1) Christophe Courchesne,
   2) I Andrew Goldberg,
   3) Melissa Ann Hoffer,
   4) Peter Charles Mulcahy, and
   5) Richard Alan Johnston."

As to Parts One (1), Two (2), Three (3), Five (5), and Seven (7) of your request, we enclose one hundred thirteen (113) pages of records which may be responsive and are subject to disclosure under the public records law, M.G.L. c. 66, § 10 and M.G.L. c. 4, § 7, cl. 26.

Some of the records responsive to these parts of your request have been redacted in accordance with M.G.L. c. 4, § 7, cl. 26 insofar as they contain: (a) taxpayer and financial account information consisting of taxpayer ID numbers and credit card account numbers, which are specifically or by necessary implication exempted from disclosure by statute (M.G.L. c. 62C, § 21; 26 U.S.C., § 6103; and M.G.L. c. 93H); (c) associated information related to specifically named individuals, the disclosure of which may constitute an unwarranted invasion of personal privacy; (d) materials that possess a deliberative character in that they reflect legal opinions and strategy associated with ongoing deliberative processes, in this instance, cases that are currently in litigation; (f) investigatory materials, which, if disclosed, would prejudice effective law enforcement by disclosing investigative techniques or sources; and (o) the home addresses and personal e-mail addresses of certain employees of the Commonwealth, which are in the custody of a government agency which maintains records identifying those persons as such employees. In addition, the responsive records include privileged attorney-client communications that are protected from disclosure,[1] and, as such, they have been redacted or withheld as appropriate.

As to Part Four (4) of your request, please be advised that responsive records are being withheld in accordance with M.G.L. c. 4, § 7, cl. 26(b), insofar as they relate solely to internal rules and practices of the AGO, to the extent that proper performance of necessary government functions requires such withholding.

As to Part Six (6) of your request, please be advised that the AGO has no responsive records.

The public records law permits a custodian of public records to charge a requester for the expense of searching for, retrieving, and segregating responsive records in addition to charges for photocopying. *See* M.G.L. c. 66, § 10; 950 CMR 32.06 (1)(c) and (4). Further, M.G.L. c. 66,

[1] *See Suffolk Const. Co., Inc.* v. *Division of Capital Asset Management,* 449 Mass, 444 (2007).

§ 10(d)(ii)(B) provides that no fees shall be charged for the first 4.0 hours of labor required to respond to a request. Although in excess of 20.0 hours of labor was expended in responding to your request, we have waived all fees in this instance.

You have the right to appeal this response to the Supervisor of Records pursuant to M.G.L. c. 66, § 10A(a), and to seek judicial review of an unfavorable decision by commencing a civil action in the superior court under M.G.L. c. 66, § 10A(c).

Very truly yours,

Lorraine A.G. Tarrow
Assistant Attorney General & Records Access Officer
General Counsel's Office

enclosures

VCT

Commonwealth of Massachusetts
Office of the Comptroller

TRAVELER VOUCHER INPUT FORM

Document ID	Department/Organization Name: EEB/EPD

Trans	Dept	R/Org	Number	Pv Date	Acctg Prd	Budget FY
PV			6003	3/17/16		2016

Action (E) (M)		SCH Pay Date	Off Liab Acct

TRAVELER'S CERTIFICATION: I herby certify under penalty of perjury that the below amounts as itemized are true and correct, were incured by me during necessary travel in the service of the Commonwealth and conform fully with travel rules and regulations.
SIGNATURE

Vendor Name and Address
Christophe Courchesne
[redacted]

Document Total	Dept
$302.20	

Vendor Invoice Number	Vendor Code	Emp
	[redacted]	YES

Date	Description	Private Auto Mileage Miles	Private Auto Mileage Amount	Begnning Ending Mileage and/or Fares	Begnning Ending Mileage and/or Hotels	Breakfast	Lunch	Supper	Other Expenses	Total Expenses
3/17/16	Purchased airline ticket to attend meeting									$302.20
	in New York on 3/29/16 regarding									
	Exxon- Clean Power Plan.									
	Not aware that Budget took care of									
	purchasing ticket until I already paid for it									
	myself.									
									Total	$302.20

Reference Document

LN	Trans	Dept	R/Org	Number	Line	Dept	Approp	Sub	Org	S/Org	Obj	S/Obj	Prog	TY

PRJ/CL/GRC	RPTG	Fund	BS Acct	Dept	Vendor Invoice Number	Description

Af-5 Number	Disc	Dates of Services	Quantity	Amount	I/D	P/F
		3/29/16 to 3/29/16		$302.20		

Prepared By		Title: Administrative Assistant	Date:	
Approved By		Title: Division Chief	Date:	
Entered By		Title:	GC 3/23/16 Date:	
Supervisor's Signature		Title: Bureau Chief	Date:	3-22-16

INSTRUCTIONS TO TRAVELLERS

- DIRECT INQUIRIES TO STATE ORGANIZATION

Page —— of ——

VNT

Department/Organization Name						
EEB/EPD 6003						
Document ID						
Trans	Dept	R/Org	Number	Pv Date	Acctg Prd	Budget FY
PV			6003	4/1/16		2016

Commonwealth of Massachusetts
Office of the Comptroller

TRAVELER VOUCHER INPUT FORM

Action (E) (M)		SCH Pay Date	Off Liab Acct	TRAVELER'S CERTIFICATION: I herby certify under penalty of perjury that the below amounts as itemized are true and correct, were incured by me during necessary travel in the service of the Commonwealth and conform fully with travel rules and regulations. SIGNATURE:	Vendor Name and Address
Document Total $50.09		Dept			Christophe Courchesne [redacted]
Vendor Invoice Number		Vendor Code [redacted]		Emp YES	

Date	Description	Private Auto Mileage Miles	Private Auto Mileage Amount	Begnning Ending Mileage and/or Fares	Hotels	Breakfast	Lunch	Suppor	Other Expenses	Total Expenses
4/1/16	Attend meeting in New York on 3/29/16								parking	$29.00
	regarding Exxon- Clean Power Plan.								metro	$21.09
	Please find attached my Garage Parking									
	Receipt as well as MetroCard receipt									
	while in NYC.									
									Total	$50.09

Reference Document

LN	Trans	Dept	R/Org	Number	Line	Dept	Approp	Sub	Org	S/Org	Obj	S/Obj	Prog	TY

PRJ/CL/GRC	RPTG	Fund	BS Acct	Dept	Vendor Invoice Number	Description

Af-5 Number	Disc	Dates of Services	Quantity	Amount	I/D	P/F
		to		$50.09		

Reviewed and Approved
General Counsel's Office

Prepared By	Clarissa Patrick	Title: Administrative Assistant	Date: 4/1/16	
Approved By:		Title: Division Chief	Date: 4/1/16	
Entered By:		Title:	Date:	
Supervisor's Signature		Title: Bureau Chief	Date:	

INSTRUCTIONS TO TRAVELLERS

- DIRECT INQUIRIES TO STATE ORGANIZATION

Page —— of ——

Document ID	Department/Organization Name					
	EEB 6000					
Trans: PV	Dept	R/Org	Number: 6000	Pv Date: 4/13/16	Acctg Prd	Budget FY: 2016

Commonwealth of Massachusetts
Office of the Comptroller

TRAVELER VOUCHER INPUT FORM

Action (E) (M)		SCH Pay Date	Off Liab Acct	TRAVELER'S CERTIFICATION: I herby certify under penalty of perjury that the below amounts as itemized are true and correct, were incured by me during necessary travel in the service of the Commonwealth and conform fully with travel rules and regulations. SIGNATURE:	Vendor Name and Address
Document Total: $95.55		Dept			Melissa Hoffer [redacted]
Vendor Invoice Number		Vendor Code [redacted]		Emp: YES	

Date	Description	Private Auto Mileage Miles	Private Auto Mileage Amount	Begnning Ending Mileage and/or Fares	Begnning Ending Mileage and/or Hotels	Breakfast	Lunch	Supper	Other Expenses	Total Expenses
3/28/16	Trip to NYC for Exxon Case									
3/28/16	Cab from 100 Cambridge St to South Stat.								Cab	$8.00
3/28/16	Cab Fare from Penn Station to Hotel in NY								Cab	$22.25
3/29/16	Cab from NY Ag's Office to Penn Station								Cab	$24.75
3/29/16	Cab from South Station to home from NY								Cab	$7.80
									Total	$95.55

Reference Document

LN	Trans	Dept	R/Org	Number	Line	Dept	Approp	Sub	Org	S/Org	Obj	S/Obj	Prog	TY

PRJ/CL/GRC	RPTG	Fund	BS Acct	Dept	Vendor Invoice Number	Description

Af-5 Number	Disc	Dates of Services to	Quantity	Amount	I/D	P/F
				$95.55		

Prepared By: [signature] Title: Administrative Assistant Date: 4/13/16

Approved By: [signature] Title: EEB Chief Date: 4/14/16

Entered By: Reviewed and approved By General Counsel's Office Date: 4/21/16 Title: Bureau Chief Date:

Supervisor's Signature: Title: Date:

INSTRUCTIONS TO TRAVELLERS

- DIRECT INQUIRIES TO STATE ORGANIZATION

Page —— of ——

4/13/16

Maria –

Additional requests for reimbursement

3/28 cab fare from 100 Cambridge to South Station ($8.00) lost receipt. For trip to NY re: Exxon & climate change

Thanks!

Melissa

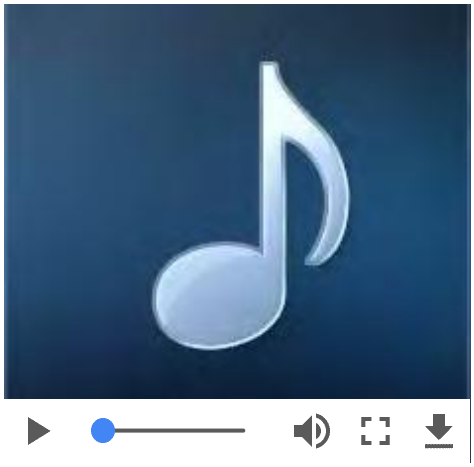
Exhibit S7

ENERGY IN DEPTH
CLIMATE & ENVIRONMENT

Search Keywords

ACTIVISTS ADMIT AT FRIENDLY FORUM THEY'VE BEEN WORKING WITH NY AG ON CLIMATE RICO CAMPAIGN FOR OVER A YEAR

JUNE 24, 2016 | KATIE BROWN



At a **forum on Wednesday** hosted by the Congressional Progressive Caucus, several climate activists including Naomi Oreskes and representatives from the Union of Concerned Scientists admitted that they have been meeting with the state Attorneys General launching climate RICO investigations for over a year.

The fact that the AGs have been meeting with Oreskes is pretty telling considering that for years she has been spearheading the effort to find a way to prosecute oil companies under RICO laws. She's author of *Merchants of Doubt*, a book published in 2010 that attempts to link ExxonMobil to tobacco companies. She's also on the board of the **Climate Accountability Institute** (CAI), the group that organized the now infamous **2012 La Jolla Conference** with the Union of Concerned Scientists at which activists brainstormed ways they could launch racketeering investigations into ExxonMobil. The ***New York Times*** even credits Oreskes with conceiving the conference.

At the question and answer session of the forum, Rep. Paul Tonko (D-NY-20) asked Oreskes "Have any of you had interactions with the any of the AGs?"

Oreskes replied,

> "Yes, thank you. Thank you for your work. I have. **I was invited about a year or so ago to New York to speak to the staff of the New York Attorney Generals' office mostly about the work we did in Merchant of Doubt** … And I also participated a few weeks ago in a meeting in Boston with some colleagues from the Union of Concerned Scientists, which also involved the staff of Attorney Generals offices from a number of states who came to listen to again factual presentations about climate science, history of climate disinformation **and also a presentation by Sharon Eubanks who had led the US Department of justice prosecution of tobacco industry under the RICO statues**." (emphasis added)

Note that Oreskes mentioned she was joined by Sharon Eubanks for the AG meeting in Boston – this is interesting because she directed the Department of Justice's tobacco litigation effort in the 1990s. Eubanks also attended the **2012 La Jolla Conference** as well as a closed-door **January**

2016 meeting at the Rockefeller Family Fund offices, at which activists brainstormed ways they could establish "in the public's mind that Exxon is a corrupt institution." This meeting in Boston is especially significant because, as Energy In Depth noted previously, Attorney General Maura Healey openly admitted that she had already determined Exxon was guilty before she even began investigating the company.

After hearing from Oreskes, Rep. Tonko then turned to Kathy Mulvey of the Union of Concerned Scientists who replied,

> **"Yes, UCS has also been involved in providing information to attorneys general who are moving into the issue on whether these companies violated any state laws in providing this information to shareholders and the public.** Our interest is really in ensuring they have access to the best science on which to base any actions and also documenting the responsibilities of these companies in terms of their emissions and their role in providing this information. **So our chief scientist Peter Frumhoff who's actually here with me as well and he has briefed a number of the AGs and he co-convened a session with the Harvard law school back in April that was attended by staff (inaudible) many of the AGs (inaudible).**" (emphasis added)

Of course the only reason we know that UCS' Peter Frumhoff briefed the AGs ahead of their March 29 press conference with Al Gore is because several batches of FOIA'd emails revealing that fact were recently made available to the public. These emails not only showed that activists were secretly meeting with the AGs launching investigations, but that both parties were actively trying to hide their meetings through Common Interests Agreements and stonewalling the press. In fact Lem Srolovic of the New York Attorney General's Office told activist Matt Pawa not to tell a *Wall Street Journal* reporter that he had briefed the AGs ahead of their press conference: "My ask is if you speak to the reporter," Srolovic said, "to not confirm that you attended or otherwise discuss the event."

After their secret was revealed however, activists went into full damage control-mode and attempted to claim they had been open the whole time and "there's nothing hidden here." This forum's question and answer sessions is undoubtedly part of that attempt to shift the story.

But if there's "nothing hidden" why were activists penning Common Interest Agreements and telling each other not to speak to the press? And if there's "nothing hidden" why are they happy to respond to this forum but not the House Science Chairman Smith's requests?

Transcript of Progressive Caucus Hearing Exchange on Climate Activists Briefing State AGs

Tonko: If indeed a fossil based industry has conducted themselves in a disingenuous manner, and moved along with a misinformation campaign; if indeed that's a fact, that is truly regrettable

because what we need to do is make certain that we're sound stewards of the environment; that we pass to the next generations an environment that is as clean if not cleaner than that which we inherited. And right now one of the issues in New York is the move by Science (inaudible) to bring our Attorney General before the committee because of his review of the allegations. Now instead of focusing on allegations, they're bringing in the AGs in a manner that would review them for their actions. And I'm wondering if any of you have been involved in any of the states where the AGs are now the target for reviewing allegations that obviously respond to the needs of the different consuming public.

Have any of you had interactions with the any of the AGs?

Naomi Oreskes: Yes, thank you. Thank you for your work. I have. I was invited about a year or so ago to New York to speak to the staff of the New York Attorney Generals' office mostly about the work we did in Merchant of Doubt – the history of misinformation and what our findings were. It was a fact based presentation. And I also participated a few weeks ago in a meeting in Boston with some colleagues from the Union of Concerned Scientists, which also involved the staff of Attorney Generals offices from a number of states who came to listen to again factual presentations about climate science, history of climate disinformation and also a presentation by Sharon Eubanks who had led the US Department of justice prosecution of tobacco industry under the RICO statues.

Tonko: Kathy? Ms. Mulvey?

Kathy Mulvey: Yes, UCS has also been involved in providing information to attorneys general who are moving into the issue on whether these companies violated any state laws in providing this information to shareholders and the public. Our interest is really in ensuring they have access to the best science on which to base any actions and also documenting the responsibilities of these companies in terms of their emissions and their role in providing this information. So our chief scientist Peter Frumhoff who's actually here with me as well and he has briefed a number of the AGs and he co-convened a session with the Harvard law school back in April that was attended by staff (inaudible) many of the AGs (inaudible).

Tonko: I find that very encouraging. Yes, Ms. Lamb.

Natasha Lamb: As I mentioned in my testimony, I have personally not been in touch with the AGs but the report that we negotiated has certainly been an important part of their investigation.

Tonko: That's great, thank you. Mr. Garvey?

Ed Garvey: I have been contacted by the State of New York AG office (inaudible)

Tonko: Thank you. It seems as though that reinforcement is important so we can go forward with every bit of truth exposed and information, not misinformation, to guide us through. So I thank you for that.

Exhibit S8

THE DAILY CALLER

Emails: Eco-Activists Plotted Oil Industry Lawsuits Before Anti-Exxon Stories Released

Posted By Michael Bastasch On 1:10 PM 05/16/2016 In | No Comments

Emails released as part of a lawsuit against a George Mason University climate scientist show environmental activists had been working behind the scenes to "hold fossil fuel companies legally accountable" for their stances on global warming long before stories were published bashing ExxonMobil's climate stance.

Peter Frumhoff, president of the Union of Concerned Scientists, wrote to a GMU climate scientist championing a letter asking the Obama administration to prosecute companies pushing global warming skepticism — spilling the beans that UCS had been working to get state attorneys general to prosecute fossil fuel companies.

"Just so you know, we're also in the process of exploring other state-based approaches to holding fossil fuel companies legally accountable," Frumhoff wrote in a July 2015 email, adding "we think there'll likely be a strong basis for encouraging state (e.g. AG) action forward, and in that context, opportunities for climate scientists to weigh in."

Frumhoff's email was to GMU climate scientist Jagadish Shukla, who was asking the UCS head to support a letter he was sending to the White House. Frumhoff declined to support Shukla's letter, and instead pointed to work his group did behind the scenes to take down fossil fuel companies.

"It would be very interesting — and perhaps very useful — to consider how calls for legal accountability will play out in the court of public opinion in different states/with different subsets of the American public –something perhaps we could work with you all on as this unfolds," Frumhoff wrote to Shukla.

Frumhoff has been a major proponent of using government prosecutors to investigate fossil fuel companies that fund groups or individuals skeptical of catastrophic man-made global warming. Frumhoff was recently invited to brief a group of largely Democratic state attorneys general investigating ExxonMobil for allegedly misleading the public on global warming — a fact AGs tried to cover-up.

Frumhoff also participated in a 2012 meeting held in La Jolla, California where prominent environmentalists brainstormed how to bring legal action against companies funding global warming skepticism, citing the anti-racketeering case brought against the tobacco industry.

"A key breakthrough in the public and legal case for tobacco control came when internal documents came to light showing the tobacco industry had knowingly misled the public," reads a memo of the 2012 meeting. "Similar documents may well exist in the vaults of the fossil fuel industry and their trade associations and front groups, and there are many possible approaches to unearthing them."

Four years later, activists were trumpeting news articles published by InsideClimate News and Columbia University claiming Exxon knew about the negative effects of global warming for decades, but funded right-wing groups skeptical of man-made warming and opposed to overreaching federal regulations.

Frumhoff's July 2015 email to the GMU professor came just two months before InsideClimate released its first report on Exxon's global warming stance. Columbia University published its first anti-Exxon article in October.

Frumhoff's email to Shukla was obtained through a Freedom of Information Act request by the Energy & Environment Legal Institute (EELI). EELI released the emails Friday as part of their investigation into Shukla's sending of a letter to the Obama administration, asking them to prosecute skeptics.

Shukla and 19 other scientists and researchers sent a letter to the Obama administration last year, asking officials to go after fossil fuel companies pushing skepticism. The signatories specifically backed calls for the Justice Department to go after skeptics using the Racketeer Influenced and Corrupt Organizations Act (RICO) as suggested by Rhode Island Democratic Sen. Sheldon Whitehouse.

The letter blew up, and Shukla and his co-signatories found themselves facing a wave of public backlash in their call to prosecute those who disagree with them on global warming. What's more is Shukla and his family were found to have taken $5.6 million from taxpayers over the years to fund a non-profit he runs.

Congress is now investigating Shukla's potential misuse of taxpayer dollars.

"Since 2001, as President of IGES, Dr. Shukla appears to have paid himself and his wife a total of $5.6 million in compensation — an excessive amount for a non-profit relying on taxpayer money," Texas Republican Rep. Lamar Smith wrote in March to the inspector general of the National Science Foundation.

Shukla's group, called the Institute of Global Environment and Society (IGES), got virtually all of its funding from U.S. taxpayers, including the National Science Foundation, NOAA and NASA. IGES got some $3.8 million from taxpayers in 2014, according to tax filings.

That year, Shukla made $333,000 working part-time, and that's on top of the lucrative salaries earned by his wife and daughter who were also employed by IGES. On top of this, he also got paid by GMU — possibly violating state law and university policies.

"It appears IGES may have improperly commingled taxpayer funds with private charitable contributions when it shifted $100,000 to an education charity in India founded by Dr. Shukla," Smith wrote. "This raises concerns that taxpayer money intended to be used for climate research was redirected to an overseas organization favored by Dr. Shukla."

Smith also cited a recent audit by George Mason University that allegedly shows Shukla was illegally "double-dipping" by collecting money from the NSF while also getting paid by Virginia taxpayers.

"In other words, he received his full salary at GMU, while working full time at IGES and receiving a full salary there," Smith wrote. "This practice may have violated GMU's university policy, his employment contract with the university, and Virginia state law."

Follow Michael on Facebook and Twitter

Exhibit S9

Maura Healey

That shirt says it all @PeterFrumhoff! Thanks for channeling it into science & action, @UCSUSA. #climatemarch pic.twitter.com/kMRdtOTfxW

Twitter

Maura Healey

Exhibit S10

nextgen america

Our story

NextGen America acts politically to prevent climate disaster, promote prosperity, and protect the fundamental rights of every American

Since our founding as NextGen Climate in 2013, we've worked to fight climate change by advancing the transition to a clean energy economy We've supported candidates who support climate action We've fought to halt the Keystone XL pipeline and registered more than 1 million voters nationwide

Now, the same values that drive our work on climate are under unprecedented attack from all directions

We're proud to step up the fight for immigrant rights affordable health care, prosperity, and equality

Our founder

Tom Steyer is a business leader and philanthropist who believes we have a moral responsibility to give back and help ensure that every family shares the benefits of economic opportunity, education, and a healthy climate

read more > (/about-us/tom-steyer/)

Join our team

If you're collaborative, flexible and driven, we may be looking for you. Explore our openings below if you're ready to take on our country's biggest challenges.

Exhibit S11

nextgen america

Tom Steyer, Founder & President

Tom Steyer is a business leader and philanthropist who believes we have a moral responsibility to give back and help ensure that every family shares the benefits of economic opportunity, education, and a healthy climate.

In 2010, Tom Steyer (https://www.linkedin.com/in/tomsteyer/) and his wife, Kat Taylor, pledged to contribute most of their wealth (https://givingpledge.org/Pledger.aspx?id=296) to charitable causes during their lifetimes. That same year, Tom worked to defeat Proposition 23, an attempt by the oil industry to roll back California's historic plan to reduce pollution and address climate change.

In 2012, Tom led a campaign to invest hundreds of millions of dollars in California schools annually by closing a corporate tax loophole. To date, Proposition 39 has put nearly a billion dollars into California schools and clean energy projects, saving millions of dollars in annual energy costs.

Tom founded a successful California business, which he left to work full-time on nonprofit (http://thenextgeneration.org/about/people/tom-steyer) and advocacy efforts (http://www.hamiltonproject.org/people/tomsteyer). He served as President of NextGen Climate, an organization he founded in 2013 to prevent climate disaster and promote prosperity for all Americans. In 2017 NextGen Climate expanded their progressive fight to include immigration, health care, prosperity, and equality – as NextGen America.

Tom's dedication to public service is greatly inspired by his wife, Kat, the co-CEO of Beneficial State Bank (https://www.beneficialstatebank.com/bios-tom-steyer) in Oakland. They founded this nonprofit community bank in 2007 to provide loans to people and small businesses shut out by the traditional banking system. Unlike most banks, by statute Beneficial State Bank invests any profits back into the community.

Tom and Kat live in San Francisco and have four children.

Learn more about Tom Steyer.

- Follow Tom Steyer on Twitter (https://twitter.com/tomsteyer)
- Tom Steyer on Facebook (https://www.facebook.com/officialtomsteyer/)
- Tom Steyer on Huffington Post (http://www.huffingtonpost.com/author/tom-steyer)
- Tom Steyer | Medium (https://medium.com/@Tom_Steyer)
- Tom Steyer | YouTube (https://youtube.com/c/TomSteyer)

Join Us

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zip

sign up

Exhibit S12

EXCLUSIVE: Billionaire Democratic donor funding $10 million campaign to impeachTrump is linked to national lawsuits against oil companies through memo to his environmental nonprofit group

- Billionaire Tom Steyer has denied involvement in state-level efforts to bring class action lawsuits against oil companies
- However, his environmental non-profit group NextGen was briefed in a 2015 memo on the strategy, which saw several lawsuits filed in multiple states
- Steyer is actively campaigning for President Donald Trump's impeachment, pledging to spend $10m in advertisements calling for his removal from office
- The 60-year-old hedge fund manager is an environmental activist and is also rumored as a primary challenger to Democratic Senator Dianne Feinstein
- Steyer, who is worth $1.61 billion, was the single largest political donor in America during the 2016 election. He contributed a total of $66.3 million
- He is rumored to be running for Senate

By ALANA GOODMAN FOR DAILYMAIL.COM
PUBLISHED 17 45 EST 13 November 2017 | UPDATED 07 11 EST 14 November 2017

A Democratic mega-donor who is campaigning to impeach Donald Trump was linked to early efforts in a class action legal campaign against the oil industry, according to documents obtained by DailyMail.com.

Tom Steyer, a California billionaire hedge fund manager and environmental activist who is also rumored as a primary challenger to Democratic Senator Dianne Feinstein, has denied involvement in state-level efforts to bring class action lawsuits against oil companies.

But records obtained by DailyMail.com show that two principals in Steyer's non-profit group NextGen were briefed in 2015 on the secret strategy behind the legal campaign, which has launched lawsuits against the oil industry in multiple states and cities.

NextGen Chief Operation Officer Dan Lashof and the group's attorney David Weiskopf received a confidential March 9, 2015 memo outlining the legal strategy.

The memo, obtained exclusively by DailyMail.com, was sent by the organizer behind the legal campaign, activist attorney Matt Pawa.

Billionaire Tom Steyer has denied involvement in state-level efforts to bring class action lawsuits against oil companies, despite his links to early efforts in the campaign

Steyer, 60, is actively campaigning for President Donald Trump's impeachment, pledging to fund $10m in advertisements calling for his removal from office

The memo is marked 'privileged and confidential,' and indicates that Steyer's organization NextGen was closely involved in early strategy discussions.

Since 2016, Oakland, San Francisco and New York have all pursued lawsuits against major oil companies related to greenhouse gas production.

In September, San Francisco announced it would sue oil giants BP, Chevron, ConocoPhillips, Exxon and Shell.

The announcement came several months after Steyer, a major political donor, contributed $30,000 to the mayor of San Francisco Ed Lee late last year.

The San Francisco lawsuit – which is modeled on prior class action campaigns against the Tobacco and asbestos industries – would require the oil companies to pay for infrastructure projects that San Francisco claims it needs to ease the impacts of climate change.

That lawsuit tracks closely with a legal strategy sent from Pawa to the attorneys working for Steyer in 2015.

The memo 'summarizes a potential legal case against major fossil fuel corporations for their contributions to California's injuries from global warming.'

It proposes class action suits against oil companies based on California's 'public nuisance' laws. The proposal said it would seek to hold oil companies responsible for rising sea levels resulting from greenhouse gas emissions.

Steyer's environmental non-profit group NextGen is linked to early efforts Chief Operation Officer Dan Lashof (left) and the group's attorney David Weiskopf (right) received a confidential March 9, 2015 memo outlining the legal strategy

Privileged & Confidential.
Attorney Work Product.
Co-Counsel & Consulting Expert Communication.

MEMO

To: David Weiskopf, Esq. & Danial Lashof
From: Matt Pawa, Esq. - Pawa Law Group, P.C.
Date: March 9, 2015
Subject: Potential Global Warming Lawsuit for California to Recover Global Warming Damages

This memorandum summarizes a potential legal case against major fossil fuel corporations for their contributions to California's injuries from global warming. The Pawa Law Group ("PLG") recently obtained over $100 million in settlements for the State of New Hampshire in its MTBE groundwater pollution case against major oil companies. In 2013 we took to trial the remaining defendant, ExxonMobil, and obtained a $236 million verdict. We also represent Vermont in an MTBE case filed in 2014. PLG has worked for over a decade on legal actions to hold the fossil fuel industry liable for global warming injuries, including cases in which we have worked in collaboration with California and other states.

While a global warming case would no doubt be challenging, just as in the Tobacco and asbestos legal battles we have learned a great deal from the early cases. Key legal principles (e.g. standing, justiciability) have been established along the way. And we have enough information to know that certain fossil fuel companies (most notoriously ExxonMobil) have engaged in a campaign and conspiracy of deception and denial on global warming. As set forth below, recent factual and legal developments bring to the fore the issue of whether C should bring a legal case now to hold industry liable for its fair share of global warm

The memo proposes class action suits against oil companies based on California's 'public nuisance' laws. The proposal said it would seek to hold oil companies responsible for rising sea levels resulting from greenhouse gas emissions

It says the corporations should be asked to pay for 'massive infrastructure changes' that California would need to deal with the water level changes.

This is the same strategy used in San Francisco's lawsuit filed in September. The city attorney was also joined by Pawa during the press conference announcing the lawsuit.

The San Francisco suit claims BP, Chevron, ConocoPhillips, Exxon and Shell have 'contributed to the creation of a public nuisance in San Francisco, and the San Francisco City Attorney has the right and authority to seek an abatement of that nuisance on behalf of the People of the State of California.'

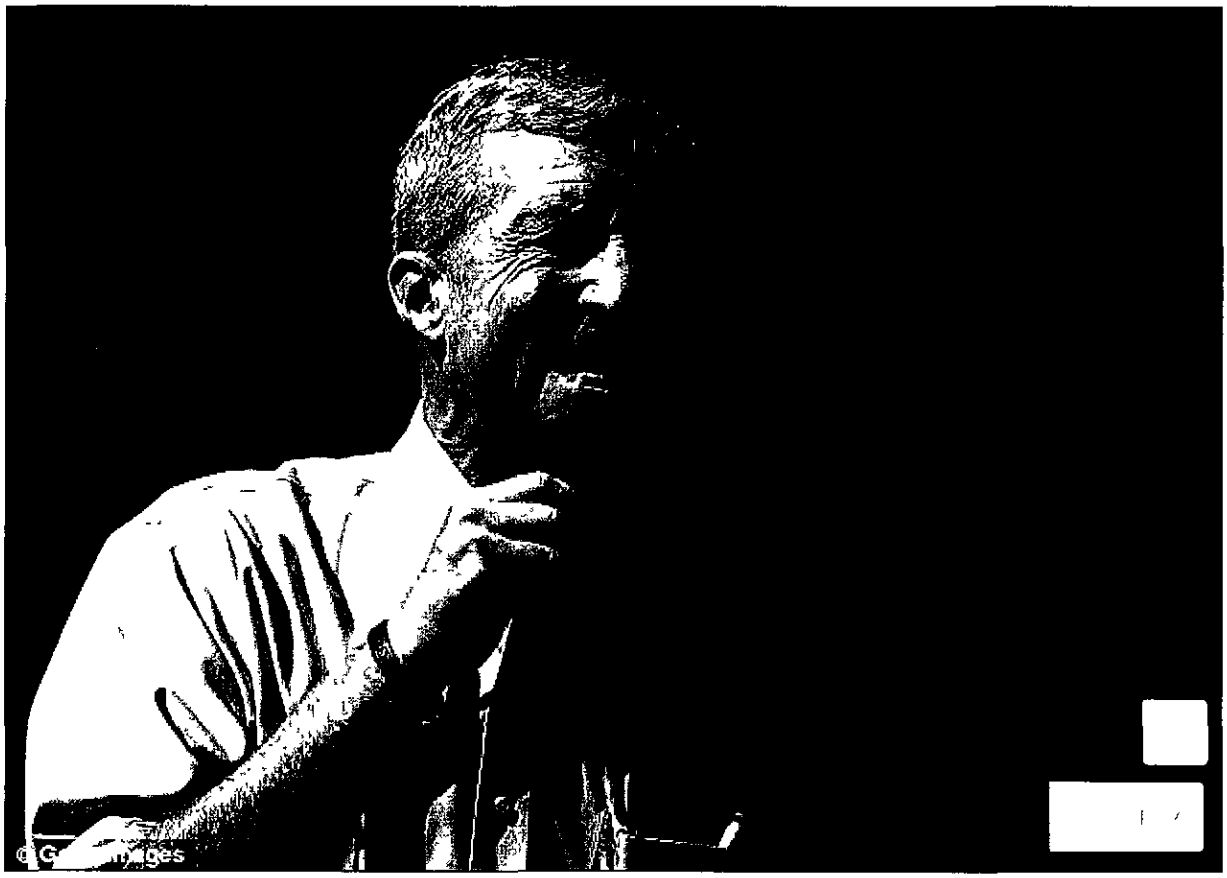
It demands that the companies set up an 'abatement fund' that would 'provide for infrastructure in San Francisco necessary for the People to adapt to global warming impacts such as sea level rise.'

The 2015 strategy memo acknowledges that judges would be reluctant to impose joint liability on oil companies for greenhouse gas emissions.

It notes that even the 'largest contributor to Global Warming' – which it claims is Chevron – 'is responsible for just 5 percent of the global greenhouse gas emissions.'

'Judges naturally will shy away from imposing joint and several liability for large monetary damages on defendants that are responsible for single digit percentages of the harm,' said the memo.

But the memo argues that climate change activists would not have to actually win the lawsuit in order to damage the oil industry.



Steyer, who is worth $1.61 billion, was the single largest political donor in America during the 2016 election. He contributed a total of $66.3 million, making him the largest donor to the Democratic Party

It claimed that 'simply proceeding to the discovery phase of a global warming case' – during which the oil corporations would be required to turn over internal documents – 'would be significant' for activists.

'Industry has withheld for years documents regarding their involvement in a campaign of deception and denial,' said the memo.

'Just obtaining such documents gave the Tobacco litigation an unstoppable momentum, here to obtaining industry documents would be a remarkable achievement that would advance the case and the cause.'

NextGen declined to comment on the memo or say whether Steyer has discussed the lawsuit with officials in San Francisco. But the group seemed to distance itself from the San Francisco campaign even as it said it hopes the effort is successful.

'Corporate polluters have put their profits ahead of Americans' health and safety, causing long-term damage to the Bay Area and its residents,' said a NextGen spokesperson.

'While NextGen America has not been involved in the current lawsuit, we were proud to help hold corporate polluters accountable for their destructive actions.'

Steyer also did not respond to request for comment. Steyer faced questions last year about whether he was connected to a similar legal challenge against the oil industry filed by New York Attorney General Eric Schneiderman.

In September 2016, the New York Post obtained an email showing that New York Attorney General Eric Schneiderman was trying to set up a phone call with Steyer to discuss political contributions to a 'governor' race in the context of the state's oil industry lawsuit.

'Eric Schneiderman would like to have a call with Tom regarding support for his race for governor . . . regarding Exxon case,' said the email, which was sent by Steyer's lawyer to his scheduler.

In September, San Francisco announced it would sue oil giants BP, Chevron, ConocoPhillips, Exxon, and Shell The announcement came several months after Steyer, a major political donor, contributed $30,000 to the mayor of San Francisco Ed Lee (pictured) late last year

The email raised questions about whether Schneiderman had plans to run for New York governor in 2018 – and whether his decision to take on Big Oil was connected to political donations.

After the email was published, Steyer denied any involvement in the oil industry lawsuit, telling Politico he was 'definitely not pushing this thing' and was 'not a part of this effort.'

Schneiderman denied that the email indicated that he was interested in running for governor.

After the Post story, a watchdog group submitted a public information request for emails between Steyer's office and Schneiderman's office.

Although public records logs indicate there were multiple conversations between the two camps in 2015, Schneiderman's office has not released the emails, citing 'law enforcement' exemptions to public records laws.

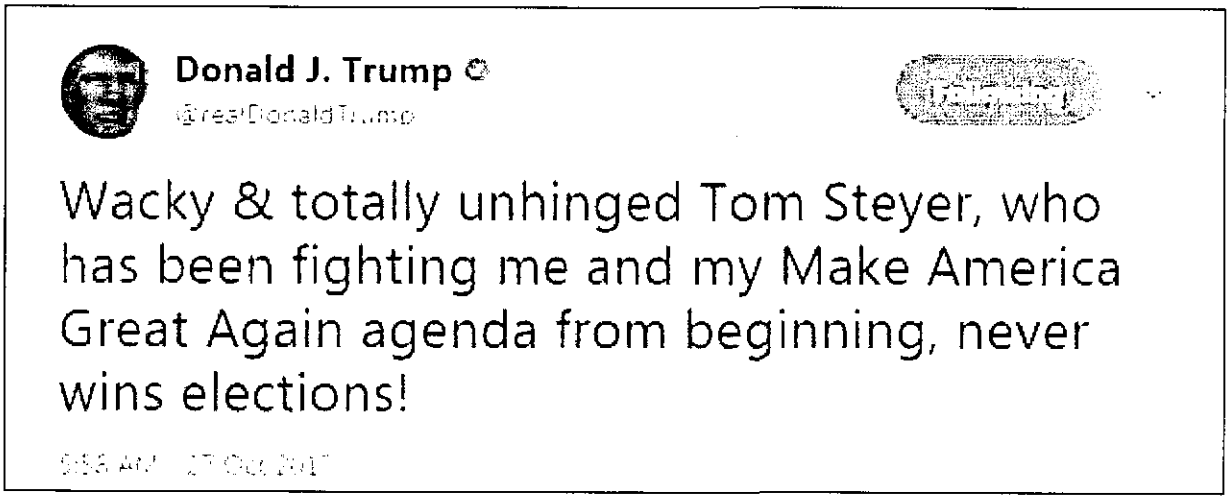
Steyer, who is worth $1.61 billion and founded the hedge fund Farallon Capital, was the single largest political donor in America during the 2016 election.

He contributed a total of $66.3 million during the cycle, making him the largest donor to the Democratic Party. He is also behind a public campaign to impeach President Trump, pouring $10 million into ads for the effort last week.

The 'Need to Impeach' campaign has been collecting signatures on a petition calling for the president's impeachment.

Steyer claimed it has been signed by 1.9 million people so far. The campaign has stoked a public feud between Steyer and Trump, with the president calling the environmental activist 'wacky' and 'unhinged.'

Trump has claimed that Steyer 'never wins elections.' But a 2010 campaign to defeat Prop. 23, an initiative to suspend landmark global warming legislation in California, that Steyer put $5 million of his own money toward defeating went down by a more than 20-point margin



The California billionaire has said he will dump at least $10 million into a national television advertising campaign against the Republican president, causing this response from Trump

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'Wacky & totally unhinged Tom Steyer, who has been fighting me and my Make America Great Again agenda from beginning, never wins elections!' wrote Trump on Twitter on October 27.

The billionaire hedge fund manager has a long history of environmental philanthropy. He was one of the main backers behind the campaign to stop the construction of the Keystone XL pipeline in 2014, and funds an array of environmental causes through his advocacy group NextGen America.

Steyer recently sparked rumors that he might run for the senate seat currently held by Democratic Senator Dianne Feinstein of California.

He took a swipe at Feinstein in October, a few months after the 84-year-old said people should have 'patience' with Trump and give him a chance.

Feinstein announced that she would run for a fifth senate term last month. The next day, Steyer sent a letter to the Democratic Congressional Campaign Committee declaring that 'this is not a time for "patience" and demanding steps to impeach Trump.

'Donald Trump is not fit for office,' wrote Steyer. 'It is clear for all to see that there is zero reason to believe he can be a good president.'

An unnamed associate of Steyer's also told the Sacramento Bee that the billionaire is 'seriously' considering a run for the senate seat.

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MEMO

To: David Weiskopf, Esq. & Daniel Bashof
From: Matt Pawa, Esq. Pawa Law Group, P.C.
Date: March 9, 2015
Subject: Potential Global Warming Lawsuit for California to Recover Global Warming Damages

This memorandum summarizes a potential legal case against major fossil fuel corporations for their contributions to California's injuries from global warming. The Pawa Law Group ("PLG") recently obtained over $100 million in settlements for the State of New Hampshire in its MTBE groundwater pollution case against major oil companies. In 2013 we took to trial the remaining defendant, ExxonMobil, and obtained a $236 million verdict. We also represent Vermont in an MTBE case filed in 2014. PLG has worked for over a decade on legal actions to hold the fossil fuel industry liable for global warming injuries, including cases in which we have worked in collaboration with California and other states.

While a global warming case would no doubt be challenging, just as in the Tobacco and asbestos legal battles we have learned a great deal from the early cases. Key legal principles (e.g. standing, justiciability) have been established along the way. And we have enough information to know that certain fossil fuel companies (most notoriously ExxonMobil) have engaged in a campaign and conspiracy of deception and denial on global warming. As set forth below, recent factual and legal developments bring to the fore the issue of whether California should bring a legal case now to hold an industry liable for its fair share of global warming harms.

I. Factual Background

A. California's Damages From Global Warming Are Substantial.

Greenhouse gas pollution already has caused severe and unprecedented present-day injuries to California. The most severe injuries are caused by California's loss of snowpack which requires a massive re-engineering of the state's water system, and by the ongoing drought.

In 2014, the United States released its most recent National Climate Assessment which concluded that the region encompassing California is "already experiencing the impacts of climate change."[1] California's water experts similarly have concluded that "[a]ll indications

[1] Melissa Gregg, 2014: Ch. 20: Southwest. *Climate Change Impacts in the United States: The Third National Climate Assessment*. J.M. Melillo, Terese (T.C.) Richmond, and G.W. Yohe, Eds. U.S. Global Change Research Program, 16 pp. doi:10.7930/J0TH8JJ. Available online at http://nca2014.globalchange.gov/report/regions/southwest.

already having a profound effect on California's water resources as evidenced by changes in snowpack, river flows, and sea levels."[2] Moreover, while California's climate "is already changing and having significant impacts on water resources, future climate change is anticipated to bring even larger and potentially accelerated rates of change."[3] One of the most pronounced climate change impacts to the state's water supply is reduced snowpack. Snowmelt is extremely important as a drinking water supply because it traditionally added about 35% to the state's reservoir capacity.[4] Human caused temperature increases already have reduced the size of the snowpack and are causing it to melt earlier in the year.[5] For example, on April 1, 2014, the statewide water content of the snowpack was measured at only 18% of the historical average.[6] The April 1 snowpack measurement is crucial because that is when the snowpack is normally at its peak and begins to melt into streams and reservoirs.[7] The snowpack that does form has been melting one to four weeks earlier.[8] California's water supply infrastructure is based upon historical conditions and is designed to store water for dry months, provide winter and spring flood protection, and to address considerable year-to-year hydrologic variability.[9] However, global warming is altering the timing, form, and amount of precipitation, and snowpack runoff patterns, as well as increasing the frequency and severity of extreme precipitation events such as floods and droughts.[10] As a result, the state must undertake massive infrastructure changes to accommodate the earlier runoff and ensure that an adequate water supply is available year round.[11]

California's state water experts have recommended that the state plan for water system modifications now and stated that the question of how to pay for such improvements is "one of the most significant issues the state faces today."[12] Climate change impacts to the water supply have been estimated to be at least **$3 billion** per year.[13] There is reason to believe that such costs

[1] California Water Plan Update 2013 (Water Plan) at 2-14, http://www.waterplan.water.ca.gov/docs/cwpu2013/Final/01_Vol1_Ch1_Introduction_to_Water_and_Info.pdf.

[2] Id. at 3-13.

[3] San Francisco Bay Conservation & Development Commission, Living with a Rising Bay: Vulnerability and Adaptation Report (June 2011) at 15 (hereinafter "Living with a Rising Bay"); Safeguarding California: Reducing Climate Risk: An Update to the 2009 California Climate Adaptation Strategy (July 2014) (hereinafter "Safeguarding California").

[4] Testimony of Dr. Peter Gleick, Pacific Institute, before the California Public Utilities Commission, Draft Decision Approving Pacific Gas and Electric Company's Test Year 2014 General Rate Case (A.12-11-009) (Feb. 27, 2014) at 3, http://www.pacinst.org/publication/testimony-of-dr-peter-gleick-before-the-california-public-utilities-commission-draft-decision-approving-pacific-gas-and-electric-company-s-test-year-2014-general-rate-case-a-12-11-009/.

[5] Water Plan at 3-5; Safeguarding California at 3-1.

[6] Water Plan at 3-5; Safeguarding California at 3-1.

[7] California Climate Change Center, Our Changing Climate: Assessing the Risks to California at 7, http://www.energy.ca.gov/2012publications/CEC-500-2012-007/CEC-500-2012-007.pdf.

[8] Safeguarding California at 3-1.

[9] *Id.*

[10] Water Plan at 3-6, 3-8.

[11] *Id.* at 3-29, 3-30, 13-13.

[12] Ellen Hanak & Jay Lund, Adapting California's Water Management to Climate Change (Oct. 2011) at 7.

[13] Living with a Rising Bay at 15.

may be even higher. For example, in 2013 U.S. EPA reported that California's drinking water infrastructure needed **$44 billion** in improvements over the next 20 years, broken down as follows, transmission and distribution ($26 billion), water sources ($2.5 billion), treatment ($8.4 billion), and storage ($6.4 billion).[1] While some portion of these costs may be unrelated to global warming, given the recognized impact of global warming in causing much of the underlying changes in water quantity and runoff timing that necessitate such infrastructure changes, it seems clear that global warming is causing the state billions of dollars of damages.

California's drought-related damages also are substantial. **Researchers have estimated that the total statewide economic cost of the drought for 2014 alone was $2.2 billion**, with a total loss of 17,100 seasonal and part-time jobs.[2] The same researchers are now predicting that drought-related damages for 2015 in California will rise to **$3 billion**.[3] Some scientists have concluded that California's drought is causally linked to anthropogenic global warming.[4]

In short, California has been significantly injured by global warming. Its citizens and taxpayers are and will continue to bear the billions of dollars in costs caused by global warming.

B. New Research in the Peer-Reviewed Literature Quantifies the Carbon Contributions of Fossil Fuel Producers.

In 2014, energy researcher Richard Heede published a peer-reviewed article, Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010, Climatic Change (Jan. 2014). For the first time, this research presents a list of fossil fuel producers with a reliable measure of each company's contribution to atmospheric greenhouse gas loading. The ten largest investor-owned companies on this list are responsible for approximately fifteen percent of the greenhouse gases in the atmosphere from the combustion of fossil fuels. They are a list of coal companies, including ExxonMobil, BP, Chevron, Shell, Peabody, etc.

[1] U.S. EPA, Drinking Water Infrastructure Needs Survey and Assessment, at ES-4 (Apr. 2013), http://www.epa.gov/ogwdw/dwsrf/pdf/report_to_congress_2013_needs_survey.pdf; Pacific Institute, Water and Climate Change 2.

[2] Richard Howitt et al., Economic Analysis of the 2014 Drought for California Agriculture, Center for Watershed Sciences, University of California Davis (July 23, 2014), https://watershed.ucdavis.edu/files/biblio/DroughtReport_Final_071614.pdf.

[3] http://www.mercurynews.com/business/ci_26999316/california-will-get-more-2nd-drought-pain-2015-report.

[4] Noah S. Diffenbaugh et al., Anthropogenic warming has increased drought risk in California, Proceedings of the National Academy of Sciences (Mar. 2, 2015). We conclude that while precipitation deficits are the proximate cause of drought, anthropogenic warming has increased the probability of co-occurrence and the severities like those that have created the acute human and ecosystem impacts associated with the exceptional 2012–2014 drought in California. [...] We have not modeled or attempted to assess the causal connection between anthropogenic global warming and drought in [illegible]

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II Summary of Legal Framework

A. The Clean Air Act Preempts Federal Common Law But Not State Law.

A global warming case would be grounded in the doctrine of public nuisance. There have been a small number of global warming cases brought thus far and, while these cases foreclose a *federal* common law claim of public nuisance as displaced by the Clean Air Act, they expressly leave open the possibility of a state common law public nuisance claim.[5]

> *American Elec. Power Co. v. Connecticut*, 131 S. Ct. 2527 (2011). In this case California, seven other states and the City of New York filed a lawsuit against the largest greenhouse gas emitters in the country (coal-burning electric utilities) seeking an injunction to reduce their emissions of greenhouse gases. The Pawa Law Group represented co-plaintiff non-profit groups in the *AEP* case and provided significant support to the states and city in this case. The complaint pled claims of federal common law public nuisance or, in the alternative, state law public nuisance. The Second Circuit Court of Appeals issued a lengthy decision embracing federal common law, rejecting all of the defenses, and that drew upon state public nuisance principles to hold that the plaintiffs had stated a proper claim. *Connecticut v. Am. Elec. Power Co.*, 582 F.3d 309 (2d Cir. 2009). The Supreme Court reversed only on the narrow ground that the federal Clean Air Act displaces federal common law and did not address the merits of public nuisance law. Importantly, the Court expressly left open the possibility of bringing similar claims under *state* public nuisance law. *AEP*, 131 S. Ct. at 2538. None of the parties have briefed preemption or otherwise addressed the availability of a claim under state nuisance law. We therefore leave the matter open for consideration on remand.[6] The Supreme Court also rejected the defendants' argument that the case should be dismissed for lack of standing and under the political question doctrine. *See id.* at 2535. On remand, the plaintiffs voluntarily dismissed their state law claims and did so in a manner that was careful to preserve their right to re-assert their state law claims.
>
> *Native Village of Kivalina v. ExxonMobil Corp.*, 696 F.3d 849 (9th Cir. 2012). In *Kivalina*, an Alaskan Inupiat Eskimo village filed suit against the nation's largest electric utilities, oil companies and coal company seeking damages for the costs to relocate the village because of climate change injuries. The case was focused primarily upon the defendants' direct emissions of greenhouse gases. The Ninth Circuit dismissed the case on the ground that, under *AEP*, the federal Clean Air Act displaces federal common law. As in *AEP*, the court did not address at all the state law public nuisance claim which Kivalina had pled in the alternative and remanded for consideration of the state law

[6] The Supreme Court rejected [illegible] displace federal common law applies to *Milwaukee v. Illinois*, 451 U.S. 304, 314 (1981) ("[S]tate laws can be applied, however, in the absence of federal common law. A federal common law exists only 'so long and so far as' a state law cannot be used.").

claims *Kivalina*, 696 F.3d at 858. On remand, the district court declined to exercise supplemental jurisdiction and dismissed the state law claim without prejudice to re-filing the case in state court. Kivalina ultimately decided not to re-file its state law claim.

California v. General Motors, 2007 U.S. Dist. LEXIS 68547 (N.D. Cal. Sept. 17, 2007). In this case the state sought damages against the nation's largest automobile manufacturers for their role in contributing to global warming through production of high-emitting motor vehicles. The district court dismissed on the basis of the political question doctrine and the state did not appeal. The decision appears to be overruled by *Kivalina* because in that case the Ninth Circuit ruled on grounds of displacement, which is a merits issue and it could not have reached the merits unless jurisdiction was proper. (In the Ninth Circuit, the political question doctrine is jurisdictional, *see Corrie v. Caterpillar*, 503 F.3d 974, 981 (9th Cir. 2007)). The Supreme Court's decision in *AEP* rejecting the political question doctrine also is at odds with the *California v. General Motors* decision.

Comer v. Murphy Oil Co., 585 F.3d 855 (5th Cir. 2009). In this case victims of Hurricane Katrina sought damages against many of the nation's largest fossil fuel companies. The complaint was not well drafted but did result in a very positive opinion from the Fifth Circuit holding that the plaintiffs had stated a proper claim of state law public nuisance. *Id.* at 861-69. That decision was later vacated for purely procedural reasons under very unusual circumstances, i.e., the Fifth Circuit granted *en banc* review and then lost its *en banc* quorum due to the recusal of judges. The Fifth Circuit held that the vote for *en banc* review prior to the recusal causing loss of a quorum had the effect of vacating the panel decision but that the court could not proceed any further once the quorum was lost. *Comer v. Murphy Oil USA*, 607 F.3d 1049, 1053-54 (5th Cir. 2010). The upshot is that there is a very favorable panel decision from the Fifth Circuit that, while lacking precedential weight, serves as a helpful model for future courts presented with state law nuisance claims on global warming.

State law is not preempted by the Clean Air Act. *See Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 492 (1987); *Bell v. Cheswick Generating Station*, 734 F.3d 188, 197 (3d Cir. 2013) (holding that the federal Clean Air Act does not preempt state common law claims based on the law of the state where the source of the pollution is located); *Freeman v. Grain Processing Corp.*, 848 N.W.2d 58, 83 (Iowa 2014) ("[T]he states were given the authority to impose stricter standards on air pollution than might be imposed by the CAA. In short, Congress expressly wanted the CAA to be a floor, but not a ceiling, on air pollution control. A similar conclusion has been reached by the Second, Third, and Sixth Circuits."). To the extent that a state law claim is made against *emissions* regulated under the federal Clean Air Act (which, as set forth in *AEP*, now includes greenhouse gas emissions), the only qualification is that the law applied must be the law of the state where the emissions occur, not where the harm occurs. *Ouellette*, 479 U.S. at

492 However, this principle would not seem to preclude a state law claim against fossil fuel producers (e.g. oil and coal companies) that is strictly focused on their role as *producers*, i.e., that did not seek to impose liability for their own emissions incidental to their extraction of fossil fuels but strictly for their *supply* of fossil fuels to third parties. Put another way, the Clean Air Act does not regulate oil or coal companies' production of fossil fuels – the statute is aimed at emissions rather than production. Thus, a lawsuit aimed at producers would not seem to be saddled with the requirement to use the law of the source state. A state court in California could thus apply California tort law rather than the laws of each state where fossil fuels are burned.

B. California Nuisance Law is Strong on the Key Issues for a Global Warming Case.

A public nuisance is defined as an unreasonable interference with rights common to the general public. Public nuisance is the basic tort law doctrine that has been used for many years to hold industry liable for all manner of pollution. As the 11th Circuit has observed:

> The theory of nuisance lends itself naturally to combating the harms created by environmental problems. The deepest doctrinal roots of modern environmental law are found in principles of nuisance. Nuisance actions have challenged virtually every major industrial and municipal activity which is today the subject of comprehensive environmental regulation.

Cox v. City of Dallas, 256 F.3d 281, 291 (5th Cir. 2001) (quotation omitted). A California state appellate court has recognized that environmental harm constitutes interference with public rights. *Bohn v. City of Benicia*, 98 Cal. App. 3d 428, 435 (1979) ("Unquestionably environmental concerns in general . . . involve preeminently important public rights.").

California public nuisance law is particularly robust on the key issue of whether it is possible to hold liable a small subset of numerous contributors to a public nuisance. In *California v. Gold Run Ditch & Mining Co.*, 66 Cal. 138 (1884), a seminal public nuisance case, the court held that the defendant was liable for a public nuisance even though its pollution alone would not have caused injury given the "vast amount" of mining previously and currently undertaken on the river by numerous others and the intermingled great still other material, which is the product of natural erosion. *Id.* at 147-48. The existence of numerous other polluters thus does not preclude holding a defendant liable for its own contributions.

A global warming case aimed at fossil fuel producers would not directly target the emitters of greenhouse gases. It would instead be akin to lawsuits against manufacturers whose product contributes to a nuisance. There is precedent for applying nuisance law to a manufacturer. The Second Circuit recently upheld a $188 million verdict (up to $1.1 billion with

against ExxonMobil sounding in public nuisance (and other legal theories). *See In re Methyl Tertiary Butyl Ether ("MTBE") Prods. Liab. Litig.*, 725 F.3d 65 (2d Cir. 2013).

C. A Case Should Seek to Hold Fossil Fuel Companies Liable for Their Fair Share of the Harms.

While past cases have sought to impose joint and several liability, it would be wise at this time to seek a more modest regime of several liability. Even the largest contributor to global warming on the list compiled by Richard Heede (i.e., Chevron) is responsible for less than five percent of the atmospheric greenhouse gas load. Judges naturally will shy away from imposing joint and several liability for large monetary damages on defendants that are responsible for single digit percentages of the harm. It thus makes sense to seek several liability.

One caveat here is that, to the extent certain defendants have engaged in a conspiracy to deceive regarding global warming, then such joint and several liability to the extent of the conspirator's joint carbon production should be proper. The very point of civil conspiracy doctrine is to make each conspirator jointly liable for the actions of the group.

D. Discovery of Industry Documents Would be a Significant Achievement.

It is worth noting that simply proceeding to the discovery phase of a global warming case would be significant. Industry has withheld for years the documents regarding their involvement in a campaign of deception and denial. Just as obtaining such documents gave the Tobacco litigation an unstoppable momentum, here too obtaining industry documents would be a remarkable achievement that would advance the case and the cause.

E. The Potential Defenses Can be Overcome.

Based upon past experience, we know with reasonable certainty the defenses that industry would invoke in a global warming case from past cases. These defenses can be overcome.

1. Standing and Justiciability

Under *Massachusetts v. EPA* and *Am. Electric Power v. Connecticut*, standing is proper where the plaintiff alleges harm from global warming. *Massachusetts v. EPA*, 549 U.S. 497, 520-26 (2007); *AEP*, 131 S. Ct. at 2535; *see also Kivalina*, 696 F. Supp. at 855 (exercising pendent jurisdiction and resolving case on merits based issue of displacement of federal common law). While industry contends that this standing law does not encompass most state plaintiffs, the issue is immaterial to a case by a state such as California.

The case is also justiciable i.e. the political question doctrine is no defense. *See BP*, 131 S. Ct. at 2535; *see also Kivalina*, 696 F.3d at 855 (implicitly rejecting defendants' political question argument by exercising jurisdiction).

2. California's Injuries Constitute Present-Day Harm.

Defendants can be anticipated to argue that the harms are speculative future harms, not present day harms for which damages can be awarded.

Under prevailing law, California's injuries should be considered current injuries even though some of the money needed to cope with global warming will be expended in the future. In determining whether damages are speculative, the courts have "distinguished uncertain damage, which prevent[s] recovery, from an uncertain *extent* of damage, which do[es] not prevent recovery, that is, the failure to establish an injury, from the not uncommon impression with regard to its scope." *Alhern v. United Food & Commercial Workers Int'l Union, AFL-CIO*, 33 F.3d 424, 427-28 (9th Cir. 1994) (emphasis in original). "The constant tendency of the courts is to find some way in which damages can be awarded where a wrong has been done. Difficulty of ascertainment is no longer confused with right of recovery." *In re Multidistrict Litig. Air Pollution*, 591 F.2d 68, 73 (9th Cir. 1979) (quoting *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555, 565-66 (1931)).

We have experience litigating this issue in the New Hampshire MTBE case, where the court held that the costs of testing every private water well in the state and treating those found to be contaminated constituted damages for present injury even though the money would be spent in the future over a period of twenty years. The jury awarded the State over $100 million for this testing and treatment program.

It is well established that a plaintiff may recover future damages for current harms especially where the tort is continuing. "A plaintiff pursuing the damage remedy is entitled to recover in one judgment the damages likely to result from prospective continuing tortious conduct." Restatement (Second) of Torts § 924 cmt. b.[1] Like those injuries suffered by

[1] *See also* Restatement (Second) of Torts, § 930(1) ("If [tort] causes continuing or recurring harm to the land or another thing, and it appears that the invasions will continue indefinitely, the whole injury may be compensated in damages for the future invasions in the same action as that for the present invasion."); *Cal. Civil Jury Instr. (BAJI) of Dept. 2.72* (Cal. App. 4th 133, 133) (2004) ("The fact that the amount of future damages may be difficult to ascertain or subject to various possible contingencies is not a reason for refusing to allow recovery for them. ... Recovery may be had for those future damages which are reasonably certain to occur as a result of the present wrong."); *Restatement, Torts* (2d) § 924 cmt. b (2011).

New Hampshire. California's water supply and drought-related injuries are current rather than future injuries even though the state has not yet spent all of the monies necessary to address these injuries. In short, California could seek present and future damages for current water supply and drought related harms with such monies to be spent into the future.

3. Statute of Limitations

Under California law, public nuisance is statutorily exempted from the statute of limitations. Cal. Civ. Proc. Code § 3490 ("No lapse of time can legalize a public nuisance amounting to an actual obstruction of a public right."); *California ex rel. Kinder Morgan Energy Partners, L.P.*, 2008 U.S. Dist. LEXIS 15640, at *21 (S.D. Cal. Feb. 29, 2008) (public nuisance action by city seeking damages and other relief for groundwater pollution exempted from statute of limitations by section 3490); *California v. Gold Run Ditch & Mining Co.*, 4 P. 1152 (Cal. 1884) ("Nor can [a public nuisance] be legalized by lapse of time."); *Rick Dev. Co. v. S. Pac. Transp. Co.*, 44 Cal. App. 4th 1160, 1216 (1996); *Abatement Investigat. Gen. Corp.*, 230 Cal. App. 3d 1125, 1144 (1991); *Indrick v. Burrow*, 103 Cal. App. 750, 755 (1930). Neither prescriptive rights, laches nor the statute of limitations is a defense against the maintenance of a public nuisance.")

4. Res Judicata and Collateral Estoppel

California has never sued fossil fuel producers (only electric utilities in *D.P.* and automobile manufacturers in *California v. GM*). Res judicata would thus not bar it from suing fossil fuel producers. Nor has California litigated a state law global warming claim. Its state law claim in *D.P.* was voluntarily dismissed and thus the state law issues were never addressed. collateral estoppel thus should not apply.

III. Conclusion

Recent factual and legal developments make a global warming case by California against fossil fuel producers viable. California is uniquely situated to bring a global warming case given the enormity of its damages and its strong public nuisance law. Pawa Law Group stands ready to assist the State in any manner to fully vet and explore this important potential case.

Exhibit S13

#EXXONKNEW LAWYER LEADS SAN FRANCISCO LAWSUIT AGAINST OIL & GAS COMPANIES

SEPTEMBER 22, 2017 | SPENCER WALRATH

This week, two California cities, San Francisco and Oakland, announced they are suing five oil and gas companies for allegedly causing global sea levels to rise. For those following the #ExxonKnew saga, it will come as no surprise that this is just the latest component of their campaign.

The lawsuit also comes just after the release of an #ExxonKnew study that tried to tie sea level rise to specific companies, and the lawsuit cites #ExxonKnew reporting paid for by anti-fossil fuel foundations.

In seeking to sue ExxonMobil and other oil and gas companies for contributing to climate change, San Francisco hired the one lawyer who has spent the last decade conspiring with activists to try and figure out a way to blame individual companies for global warming.

> Wonderful gathering of legal & NGO folks at #COP21 side event on #ExxonKnew. Thanks to all who attended. Huge mo! pic.twitter.com/P20xpBguU3

> — Matt Pawa (@MattPawa) December 9, 2015

So let's take a look at Matt Pawa, the lawyer hired by the plaintiffs to argue their case.

Pawa attended the now infamous 2012 conference in La Jolla, California, where attendees strategized how to hold companies accountable for "climate change damages." He also attended the secret January 2016 #ExxonKnew meeting at the Rockefeller Family Fund offices where activists strategized ways to "establish in the public's mind that Exxon is a corrupt institution" and discussed "avenues for legal actions" against the company.

Pawa also gave a presentation to state attorneys general before their March 29 2016 press conference with Al Gore announcing additional investigations of ExxonMobil. When the *Wall Street Journal* reached out to Pawa to inquire about his role in the briefing, Pawa emailed Lem Srolovic at the New York AG s office, asking what he should do. Srolovic replied, "My ask is if you speak to the reporter to not confirm that you attended or otherwise discuss the event." In other words: don't tell the media the truth

Pawa is closely tied with several groups involved in the #ExxonKnew campaign. He previously sat on the board of the Climate Accountability Institute, which "manipulated academic research to smear Exxon," according to one report. Before starting his own practice, he worked at Cohen Milstein, the law firm that administered the subpoena from the U S. Virgin Islands Attorney General to ExxonMobil. Pawa is also on the board of the Center for International Environmental Law, the group responsible for the Smoke & Fumes website, which alleges the fossil fuel industry used the "tobacco playbook" to sow doubt about climate change.

Pawa brought a similar lawsuit against fossil fuel companies in 2010, alleging that they were responsible for melting sea ice that had protected an Alaskan village from storms It was dismissed for lack of standing and Pawa's appeal failed. Pawa later sued ExxonMobil for an MTBE spill in New Hampshire, resulting in a $236 million judgment against the company.

InsideClimate News published an article on Pawa in 2010, in which Pawa said about his effort to link ExxonMobil to tobacco companies:

> "We've only just begun to fight. Think where tobacco litigation was in the 1950s and 1960s – there were cases tried to defense verdict after defense verdict. The lawyers doing that? Many of them went bankrupt or came close. **You learn by doing, and you learn which cases to try and which theories work. Maybe someone will come by ten years from now and think of something new, but we're setting the table for what comes after**." (emphasis added)

Pawa's firm was absorbed by Hagens Berman Sobol Shapiro earlier this month "in an effort to pursue climate change litigation against companies."

The lawsuit comes on the heels of several other California communities suing 37 fossil fuel companies earlier this summer for causing climate change. Environmental activists are pushing California Attorney General Xavier Becerra to launch his own #ExxonKnew investigation, even as parallel investigations by the New York and Massachusetts attorneys general remain locked up in court.

So what does the lawsuit say? It faults the five oil and gas companies for knowing about climate change while continuing to meet the energy demands of consumers, including residents and government officials in cities like San Francisco and Oakland:

> "Even today, with the global warming danger level at a critical phase, Defendants continue to engage in massive fossil fuel production and execute long-term business plans to continue and even expand their fossil fuel production for decades into the future."

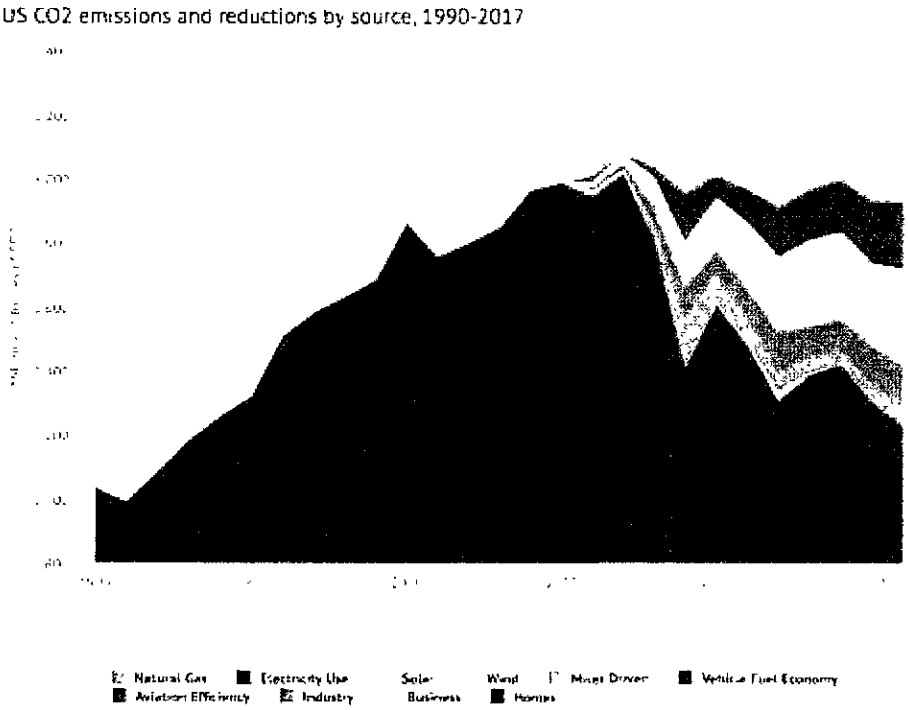
But there are a number of problems with this line of reasoning, the most obvious of which is that we're all responsible for contributing to climate change. The residents of San Francisco drive cars and fly in planes powered by petroleum and turn on lights and Instagram from phones that are recharged at least in part by natural gas power plants. Our society runs on fossil fuels and it is hypocritical for San Francisco to sue these companies for providing a product its citizens rely on. California emitted 440.4 million metric tons of CO_2 equivalent in 2015.

The plaintiffs fault oil and gas companies for knowing about climate change in the mid-20thcentury, accusing them of ignoring the "warnings" and proceeding "to double-down on fossil fuels." But they later admit that the public had also been warned about climate change as far back as 1896. It remains unclear why energy producers are to be blamed for this while the city of San Francisco escapes any responsibility, other than the fact that the city would obviously not sue itself.

The lawsuit also bizarrely criticizes the companies for correctly stating that natural gas reduces global carbon dioxide emissions:

> "Exxon's 'Lights Across America' website advertisement states that natural gas is 'helping dramatically reduce America's emissions' even though natural gas is a fossil fuel causing widespread planetary warming and harm to coastal cities like San Francisco and the use of natural gas competes with wind and solar, which have no greenhouse gas emissions."

According to Carbon Brief, a UK-based website covering climate issues, "Increases in [natural] gas electricity generation **is the largest driver, account for 33% of the total emissions reduction in 2016.**" (emphasis added)



San Francisco also faults ExxonMobil and BP for supposedly understating the expected market share of electric vehicles in their energy forecasts. But it is unclear exactly how a forecast can be understated, as it predicts something, based on presently available information, which has not yet occurred. That would be similar to accusing a meteorologist for understating next Sunday's temperature – you cannot know if they were correct until Sunday arrives.

Undaunted, the plaintiffs justify their accusation by suggesting "electric vehicle technology has taken off." But the electric vehicle market share in the U.S. declined each year between 2013 and 2015, and in 2016 electric vehicles were still less than one percent of the U.S. market share. The plaintiffs further justify their accusation that ExxonMobil and BP "understated" electric vehicle demand by referencing a 2015 General Motors proclamation that merely states the "future is electric."

Why are the words of GM valued as a more accurate prediction of the future than the words of ExxonMobil and BP? We've heard bold predictions about the future of electric vehicles before, like when Thomas Edison made a prediction in 1914 that still hasn't panned out more than a century later:

> "I believe that ultimately the electric motor will be universally used for trucking in all large cities, and that the electric automobile will be the family carriage of the future. All trucking must come to electricity. I am convinced

> that it will not be long before all the trucking in New York City will be electric "

The lawsuit closes by saying

> "Defendants have inflicted and continue to inflict injuries upon the People that require the People to incur extensive costs to protect public and private property, against increased sea level rise, inundation, storm surges, and flooding "

That s a pretty spurious argument on which to rest your case The public has known for decades of the link between burning fossil fuels and global warming, yet society has continued to use oil and natural gas because there are still no alternatives that match their low-cost, their energy density, and their dispatchability

San Francisco continues to use fossil fuels as it seeks to blame others for that use, which is a perfect explanation as to why this lawsuit is but the latest hypocritical component of a larger political campaign

Exhibit S14

AGREEMENT BETWEEN
CITY AND COUNTY OF SAN FRANCISCO
and

Hagens Berman Sobol Shapiro LLP;
For Professional Legal Services

This Agreement, dated for convenience of reference as of September 13, 2017, is by and between the San Francisco City Attorney's Office, acting on behalf of the People of the State of California ("the City Attorney"), and **Hagens Berman Sobol Shapiro LLP** ("Special Counsel").

This Agreement is made with reference to the following facts and circumstances:

A. The City Attorney wishes Special Counsel to provide professional legal services to assist the City Attorney in evaluating and, if appropriate, prosecuting a civil action against fossil fuel companies including Chevron Corporation, Exxon Mobil Corporation, ExxonMobil Oil Corporation, B.P. P.L.C., Royal Dutch Shell PLC, ConocoPhillips Company and related entities ("Oil Companies") based on global warming injuries and adaptation costs ("the Litigation"). Pursuit of civil penalties or any proceeds akin to civil penalties are excluded from the scope of the representation.

B. California Code of Civil Procedure section 731 vests the San Francisco City Attorney with authority to file actions in the name of the People of the State of California in order to abate a public nuisance. The City Attorney has the authority to retain outside legal counsel and consultants to assist him with such representation. The City Attorney believes that entering into this Agreement will protect the public and "lead to results that will be beneficial to society—results which otherwise might not have been attainable." *(County of Santa Clara v. Superior Court* (2010) 50 Cal.4th 35, 58.)

C. Special Counsel are known for their expertise in the area of environmental litigation and complex civil litigation and are well qualified to assist the City Attorney in accordance with the provisions of this Agreement.

D. Special Counsel will report to and work under the direction and control of the City Attorney as provided in this Agreement.

E. This Agreement creates an on-going attorney-client relationship between Special Counsel and the City Attorney's Office. The attorney-client relationship shall remain in place at all times from the effective date of this Agreement until such time as either party provides written notice of its intent to terminate the attorney-client relationship. The attorney-client relationship will remain in place continuously under this Agreement until such notice is provided, regardless of whether Special Counsel is actively performing legal work for the City Attorney at any given time.

NOW, THEREFORE, the parties agree as follows:

1. SCOPE OF SERVICES

1.1 Scope

Upon request of the City Attorney, Special Counsel shall advise and assist the City Attorney on matters relating to the Litigation. The Scope of Services of Special Counsel may be modified from time to time, in writing, by the City Attorney.

(a) The San Francisco City Attorney, as the chief legal officer of the City and County of San Francisco ("San Francisco" or the "City"), who is charged with representing it in legal proceedings with respect to which it has an interest, and who is authorized to bring public nuisance actions on behalf of the People of the State of California, shall retain final authority over all aspects of the Litigation, including all critical discretionary decisions involved in the Litigation and in particular, any decision regarding the ultimate disposition of the Litigation. In order to retain final authority over the Litigation, the City Attorney will (1) retain complete control over the course and conduct of the Litigation; (2) retain a veto power over any decisions made by Special Counsel; and (3) appoint a Deputy City Attorney with supervisory authority who will specifically be assigned and personally be involved in overseeing the Litigation and supervising the work of Special Counsel as follows:

(1) The City Attorney's Office will retain complete control over the course and conduct of the Litigation, and Deputy City Attorneys will be actively involved in and direct all decisions related to the Litigation. To assist the City Attorney's Office with retaining complete control over the course and conduct of the Litigation, Special Counsel will present the following matters to the City Attorney's Office for decision with adequate time for the City Attorney's Office to review and decide such matters: (a) ultimate disposition of the Litigation, including but not limited to whether to settle or try the case; (b) witnesses and evidence to be presented at trial; (c) waiver of a jury trial, if applicable; (d) the necessity of pursuing discovery motions, depositions, and written discovery; (e) all dispositive motions and oppositions to such motions; (f) all significant court pleadings, discovery, or procedural motions; (g) witnesses and evidence to be produced during discovery; (h) retention and selection of experts and consultants, including but not limited to subject matter and areas of expert reports and testimony; (i) approval of expert reports; (j) procedural tactics; (k) overall discovery approach; (l) gathering and presentation of evidence at trial; (m) all litigation and trial strategy questions; and (n) any and all other discretionary matters. These provisions are not meant to be exhaustive, and Special Counsel agree that at all times the final authority for discretionary decisions in the Litigation will remain vested in the City Attorney's Office. It is the intent of the parties to this Agreement ("the Parties") that this paragraph be construed broadly to effectuate the Parties' intent that the City Attorney's Office exercise control over the course and conduct of the Litigation and that the City Attorney's Office have *final* decision-making authority over all aspects of the litigation strategy. Status meetings between the City Attorney's Office and Special Counsel will be held as requested by the City Attorney's Office.

(2) The City Attorney's Office will retain veto power over any decisions, proposals, or recommendations made by Special Counsel, including, but not limited to, those matters listed in subparagraph (1) above. In order to effectuate control over the Litigation, Special Counsel will provide the City Attorney's Office with adequate notice of all events, timely copies of all pleadings that Special Counsel propose filing, and timely copies of pleadings that defendants filed in the Litigation (in the event that defendants do not serve them directly on the City Attorney's Office, as defendants are required to do under the California Rules of Court) to allow proper, complete, and considered valuation of all subject matters, including, but not limited to, those listed in subparagraph (1) above. For example, copies of motions filed by defendants (and not directly served on the City Attorney's Office) will be sent to the City Attorney's Office immediately so that the City Attorney's Office can review them and, as necessary, discuss strategy related to the opposition or reply. By further example, Special Counsel will consult with the City Attorney's Office regarding any motions to be filed on behalf of the People and allow the City Attorney's Office adequate time to make a considered judgment regarding the necessity and strategy involved in filing the motions.

(3) The City Attorney's Office will appoint a Deputy City Attorney with supervisory authority who will specifically be assigned and personally be involved in overseeing the Litigation and the relationship with Special Counsel. The City Attorney, as the chief legal officer, will be apprised by his or her designee regarding the course and conduct of the Litigation.

(4) Decisions regarding settlement of the Litigation are explicitly reserved to the discretion of the City Attorney's Office. Defense Counsel may contact the assigned Deputy City Attorney directly, without having to confer with Special Counsel regarding settlement.

(b) Special Counsel are authorized to take appropriate legal steps to handle the Litigation as it pertains to any and all claims made and all relief sought, with the exception of civil penalties.

(c) Special Counsel shall not make or distribute any press releases without the express permission of the City Attorney. Special Counsel shall make every effort not to make statements to the press without the permission and consent of the City Attorney.

(d) Special Counsel shall provide sufficient resources, including attorney time, and competent personnel to handle the Litigation through judgment after trial court proceedings and any appeals or petitions for discretionary appellate review, or, subject to approval as provided herein, through settlement.

1.2 Ownership of Documents, Reports and Data Files

Any and all documents, reports and/or data files originated and prepared by Special Counsel pursuant to this Agreement shall be and become the property of the City Attorney's Office for its use in any manner it deems appropriate. If the City Attorney disseminates any or all of such information to other persons who are not public officers or employees, it may identify Special Counsel as the source of said information. The City Attorney need not receive

Special Counsel's authorization for any such dissemination, but will seek to advise of such dissemination before so doing. Nothing herein shall modify existing law regarding ownership of an attorney's work product, nor limit in any respect an attorney's obligations under the applicable Rules of Professional Conduct.

1.3 Retention of Records

Special Counsel shall maintain records, including records of financial transactions, pertaining to the performance of this Agreement, in their original form, in accordance with requirements prescribed by the City Attorney. These records shall be retained for a period of no less than five years following the expiration date of this Agreement. Said records shall be subject to examination and audit by authorized City Attorney personnel at any time during the term of this Agreement or within the five years following the termination date of this Agreement.

1.4 Maintaining Attorney-Client Privilege

Special Counsel acknowledge that they have no authority to waive the attorney-client privilege on behalf of the City Attorney and agree to conduct their activities relating to this matter in such a manner as to maintain the confidentiality of communications between Special Counsel and the City Attorney and any City official or employee. Special Counsel further agree not to waive the attorney-client privilege with respect to documents or communications obtained or conducted in connection with this matter without the express written consent of the City Attorney.

2. TERM

The term of this Agreement (the "Term") shall be from September ___, 2017 until six months after the final resolution of the Litigation, unless sooner terminated according to the terms of this Agreement, including, but not limited to, the City Attorney's exercising its rights to terminate under Section 6 of this Agreement.

3. EFFECTIVE DATE

This Agreement shall become effective upon full execution and delivery of this Agreement by both parties, provided that Special Counsel shall not perform any work under this Agreement until the City Attorney gives Special Counsel either written or oral notice to proceed with performance of the Scope of Services under this Agreement.

4. COMPENSATION

4.1 Costs

(a) Special Counsel agree to advance all out of pocket litigation costs incurred by Special Counsel or by the City Attorney's Office in the Litigation. San Francisco and the City Attorney's Office are not liable to pay any of the expenses of the Litigation, whether such expenses are attorneys' fees, costs or other amounts. The repayment of any costs and other expenses is contingent upon a monetary recovery, other than civil penalties, being obtained. If no such monetary recovery is obtained, San Francisco and the City Attorney's Office will owe nothing for costs and other expenses. If such a monetary recovery is obtained, Special Counsel shall be reimbursed out of that recovery for "Reimbursable Costs" incurred, as further described below.

(b) For the purposes of this Agreement, Reimbursable Costs shall include: deposition costs (other than videotaping, unless approved in advance); filing fees for which the People are not exempt; court reporter and transcript fees; fees for service of process; fees for messenger services, and reasonable travel expenses.

(c) Reimbursable Costs shall also include the following, if Special Counsel first obtains approval from the City Attorney's Office: charges for outside vendor document reproduction, document hosting, and database management which, because of volume or format, is impractical to complete, host or maintain in-house; fees for consultants, experts, or investigative services; videotaping of depositions; costs associated with special master or alternative dispute resolution services; and other expenses for which Special Counsel obtains prior approval.

(d) Reimbursable Costs shall not include: postage (except for the costs of special shipping or overnight mail, as required); online subscription, connection or other costs for computerized research; telephone charges (whether local or long distance); facsimile charges; wages and overtime (except for approved wages and overtime paid to contract attorneys); and any other charges incurred without the authorization of the City Attorney's Office.

(e) In the event the court awards the Defendants certain costs they incurred in defending the Litigation ("Statutory Costs"), those costs will be paid out of the Revolving Fund described below in paragraph 4.2(d). If the funds in the Revolving Fund are not sufficient to pay any Statutory Costs awarded to Defendants, the City Attorney's Office will pay up to $25,000 of the Statutory Costs, and Special Counsel shall pay any remaining Statutory Costs.

4.2 Attorneys Fees

(a) If Special Counsel and the City Attorney are successful in obtaining and collecting a recovery — whether by judgment, settlement, or otherwise — Special Counsel shall be paid a contingency fee out of such recovery in the amount of 23.5 percent of the Net Monetary Recovery as defined herein. The City Attorney's Office will support Special Counsel's application for an award of attorneys' fees from any common fund created by the resolution of the Litigation. The City Attorney's Office will support Special Counsel's application for an award of attorneys' fees and costs from the Defendants in the event that the Litigation is resolved on the basis of injunctive relief alone. The remaining 76.5 percent of the Net Monetary Recovery shall be used by the City for abatement, adaptability, and other costs related to the global warming injuries at issue in the contemplated civil action.

(b) Notwithstanding paragraph 4.2(a) above, the City Attorney shall pay no higher percentage for compensation of Special Counsel than is paid by any other local or state government entity that Special Counsel represents on a contingent fee basis in this or similar litigation.

(c) For the purposes of this Agreement, Net Monetary Recovery shall include, without limitation, the then present value of any monetary payments by the adverse parties in the Litigation, or their affiliates or insurance carriers, whether by judgment, settlement, or otherwise, after all Reimbursable Costs incurred by Special Counsel and the City Attorney's

Office are reimbursed out of the gross monetary recovery. If the Net Monetary Recovery is zero or less (that is, if Reimbursable Costs exceed the gross monetary recovery) Special Counsel will receive nothing for their legal services under this Section 4.2(b), but may petition the court for an award of attorneys' fees and costs against the defendants consistent with the terms of Section 4.2(a).

(d) Subject to Section 9, Special Counsel may associate with other law firms as co-counsel in the Litigation subject to the City Attorney's approval, which approval shall not be unreasonably withheld. Any associated co-counsel must execute an agreement to be bound by the terms of this Agreement. Any attorneys' fees awarded to Special Counsel shall be apportioned among them according to their separate agreement. In the event of a dispute among Special Counsel relating to the apportionment of any fee award, the full amount of the disputed fees shall be placed in an escrow account to be released only after resolution of the dispute among Special Counsel, and the undisputed portion will be distributed promptly and appropriately. Special Counsel shall resolve any fee dispute independently among themselves, and the undisputed portion of any monetary recovery shall be deposited into a separate trust account created by Special Counsel for disbursement in accordance with the terms of this Agreement.

(e) All monies recovered by judgment, settlement, or otherwise, and any other proceeds resulting from the Litigation, shall be deposited into a separate trust account created by Special Counsel for disbursement in accordance with the provisions of this Agreement and any court orders governing the distribution of such funds, subject to the direction of the City Attorney. Special Counsel shall be responsible for the administration and management of claims and for any associated costs relating to claims management and administration, subject to the direction of the City Attorney.

(1) **Revolving Fund.** When a gross recovery is received by Special Counsel, Special Counsel shall notify the City Attorney and provide the City Attorney with a statement of outstanding fees and unreimbursed Costs. Funds in the trust account shall be released, first, to pay unreimbursed Costs up to the date of such Recovery, second to pay any fees owed to Special Counsel up to the date of such Recovery and, third, the remainder of such funds shall be distributed as follows:

- 100% of the first $500,000 will remain in the trust account as a "Revolving Fund" to be held for reimbursement of future costs advanced. If the amount in the revolving fund at the time of settlement is greater than zero but less than $500,000, 100% of the cash recovery needed to bring the Revolving Fund back up to $500,000 will remain in the Revolving Fund.

- Amounts above $500,000 will be allocated as follows: 50 percent to be received by the City Attorney as a recovery prior to the conclusion of the case and 50% to be retained by the City Attorney in the Revolving Fund managed by Special Counsel in order to pay future costs. The Revolving Fund is capped at a total of $2 million (i.e., the first $500,000 plus another

$1.5 million) at the time of any settlement; once the cap is reached in connection with a given settlement the City Attorney shall receive 100% of the rest of the recovery.

Interest earned in the trust account shall accrue in the fund and be used to pay expenses or be distributed as part of a final distribution in the case. When the Litigation is concluded and unappealable, by way of a settlement with or judgment against the final remaining defendant or otherwise, the Revolving Fund shall be closed and the remaining proceeds in the fund shall be used as part of the final distribution to the City Attorney and Special Counsel of Costs and Net Recovery.

5. TAXES

Payment of any taxes, including possessory interest taxes and California sales and use taxes, levied upon or as a result of this Agreement, or the services delivered pursuant hereto, shall be the obligation Special Counsel.

6. TERMINATION

6.1 Termination Without Cause

The City Attorney, in his sole discretion, may terminate this Agreement for convenience and without cause, at any time, by giving Special Counsel at least thirty (30) days written notice of such termination.

6.2 Non Exclusive Remedies

The City Attorney's right to terminate this Agreement under this Section 6 is not its exclusive remedy but is in addition to all other remedies available to the City Attorney by law, in equity, or under the provisions of this Agreement.

6.3 Duties Upon Termination

Upon any termination of this Agreement, Special Counsel shall immediately provide the City Attorney with complete and accurate copies or originals -where appropriate - of all documents in its possession belonging to the City. Special Counsel further agrees to do all other things reasonably necessary to cause an orderly transition of services without detriment to the rights of the City Attorney.

6.4 Attorneys' Fees and Expenses

In the event this Agreement is terminated without cause under this Section 6, Special Counsel retains full rights to petition the court for an award of attorneys' fees and costs to be paid exclusively by the defendants.

7. STAFFING

7.1 Commitment of Qualified Personnel

Services under this Agreement shall be performed only by competent personnel under the supervision of and in the employment of Special Counsel. Particular tasks must be performed by lawyers with appropriate levels of experience for the performance of such tasks.

7.2 Named Personnel

Hagens Berman Sobol Shapiro LLP shall provide the legal services required under this Agreement.

Special Counsel has been selected due to the unique skills and experience of counsel and the following named personnel:

Steve W. Berman
Matt Pawa

The lead attorneys named above shall be the principal contacts with the City Attorney. Any change in the lead attorneys or addition to or substitution of any of the other named staff requires the City Attorney's prior written approval. Staffing decisions required to be taken by Special Counsel in an emergency for which prior written approval of the City Attorney is not feasible shall be limited to such emergency situation only, taken by Special Counsel in a reasonable manner and require immediate follow-up discussions with the City Attorney.

At all times Special Counsel shall staff meetings, hearings, proceedings and the other elements of the scope of services to be rendered under this Agreement in a cost effective manner, consistent with the requirements of Section 7.1 above and as otherwise provided in this Agreement.

Before undertaking any major task such as engaging in a document review or drafting of a motion or pleading, Special Counsel shall consult with the City Attorney about the most cost effective method of undertaking work, including but not limited to using City staff or City Attorney staff to do as much of the work as appropriate. Special Counsel may nonetheless proceed with any time-sensitive task while awaiting a response from the City Attorney to a request for authority or consultation.

8. INSURANCE

8.1 Required Coverage

Without in any way limiting Special Counsel's liability pursuant to the "Indemnification" section of this Agreement, and subject to approval by the City's Risk Manager of the insurer and the policy forms, Special Counsel shall procure and maintain throughout the Term of this Agreement, at Special Counsel's sole expense, the following insurance:

(a) Workers' Compensation, in statutory amounts, with Employer's Liability Limits not less than one million dollars ($1,000,000) each accident, injury, or illness; and

(b) Comprehensive General Liability Insurance with limits not less than one million dollars ($1,000,000) for each occurrence, combined single limit for bodily injury and property damage, including contractual liability, personal injury, products and completed operations coverages.

(c) Professional Liability Insurance with limits not less than one million dollars ($1,000,000) each claim, with a deductible of not greater than Two Hundred Fifty Thousand Dollars ($250,000), each claim, covering legal malpractice arising from any services provided under this Agreement.

8.2 Liability Policies

Each policy shall be with an insurer with a rating comparable to A-, VIII or higher, that is authorized to do business in the State of California. Except for Professional Liability Insurance, all liability policies that this Section requires Special Counsel to maintain shall provide for the following: (i) name as additional insureds San Francisco, its officers, agents and employees; and (ii) specify that such policies are primary insurance to any other insurance available to the additional insureds, with respect to any claims arising out of this Agreement and that insurance applies separately to each insured against whom claim is made or suit is brought.

Such policies shall also provide for severability of interests and that an act or omission of one of the named insureds that would void or otherwise reduce coverage shall not reduce or void the coverage as to any insured, and shall afford coverage for all claims based on acts, omissions, injury or damage which occurred or arose (or the onset of which occurred or arose) in whole or in part during the policy period.

If requested by the City Attorney, Special Counsel will provide a complete copy of each insurance policy required under Section 8.1 of this Agreement.

8.3 Certificates

At a date to be specified by the City Attorney, Special Counsel shall deliver to the City Attorney a certificate of insurance for each required policy with insurers and additional insured policy endorsements for the comprehensive general liability insurance and workers' compensation insurance. Each policy and certificate shall provide that no cancellation, major change in coverage or expiration shall become effective or occur until at least thirty (30) days after receipt of written notice by the City Attorney.

8.4 General Annual Aggregate Limits

Should Special Counsel provide any of the required liability insurance under a form of coverage that includes a general annual aggregate limit or provides that claims investigation or legal defense costs be included in such general annual aggregate limit, either the general aggregate limit shall apply separately to this Agreement or the general aggregate limit shall be twice the occurrence or claims limits specified above.

8.5 Lapse in Coverage

Should any required insurance lapse during the term of this Agreement, Special Counsel shall immediately notify the City Attorney. Regardless of whether the City Attorney receives such notice from Special Counsel, the City Attorney shall have the sole option to direct Special Counsel to immediately discontinue all work under this Agreement. Requests for payments originating after such lapse shall not be processed until the City Attorney receives satisfactory evidence of reinstated coverage as required by this Agreement, effective as of the lapse date. If

insurance is not reinstated, the City Attorney may, at his sole option, terminate this Agreement upon the lapse of any required insurance.

8.6 Claims Made Forms

Should any of the required insurance be provided under a claims-made form, Special Counsel shall maintain such coverage continuously throughout the term of this Agreement and without lapse, for a period of three (3) years beyond the expiration of the term of this Agreement, so if any occurrences during the term of this Agreement give rise to claims made after expiration of the Agreement, such claims shall be covered by such claims-made policies.

8.7 Review of Requirements

At the request of the City Attorney, Special Counsel and the City Attorney shall periodically review the limits and types of insurance carried pursuant to this Section 8. If the general commercial practice in the City is to carry liability insurance in an amount or coverage materially greater than the amount or coverage being carried by Special Counsel for risks comparable to those associated with the activities to be conducted under this Agreement, then the amounts or coverage carried by Special Counsel shall be increased to conform to such general commercial practice.

9. ASSIGNMENT AND SUBCONTRACTING

9.1 Limitations on Assignment

Special Counsel shall not, without written consent of the City Attorney, assign or transfer any interest in this Agreement, or delegate its performance of duties under this Agreement, in whole or in part; and no approval of any assignment, transfer, or delegation of duties shall constitute approval of any subsequent assignment, transfer or delegation of duties. Special Counsel recognizes and agrees that the services to be performed under this Agreement are personal in nature, and the City Attorney may give, withhold or condition his consent in his sole and absolute discretion.

9.2 Limitations on Subcontracting

Special Counsel is prohibited from subcontracting this Agreement or any part of it unless Special Counsel first obtains the City Attorney's written approval of the subcontractor and the scope of services to be performed under any subcontract. Any such subcontracting will be subject to the approval of the City Attorney in his sole and absolute discretion. An agreement made in violation of this provision shall confer no rights on any other party and shall, at the City Attorney's sole option, be void.

10. CONFLICTS OF INTEREST

10.1 Knowledge of Conflict

Through its execution of this Agreement, Special Counsel acknowledges that it is familiar with the provisions of section 15.103 of the City's Charter, Article III, Chapter 2 of the City's Campaign and Governmental Conduct Code, and sections 87100 *et seq.* and sections 1090 *et seq.* of the Government Code of the State of California, and certifies that it does not know of any facts which constitute a violation of said provision and agrees that it will

immediately notify the City Attorney if it becomes aware of any such fact during the term of this Agreement.

10.2 Disclosure of Any Conflicts

By executing this Agreement, Special Counsel further certifies that it has made a complete disclosure to the City Attorney of all facts bearing upon any possible interest, direct or indirect, which it believes any member of the City Attorney's Office, or other officer, agent or employee of the City, presently has, or will have, in this Agreement, or in the performance thereof, or in any portion of the profits thereunder, except as disclosed in advance to and waived in writing by the City Attorney. The existence of any actual or potential conflict must be promptly reported by Special Counsel to the City Attorney and resolved to the City Attorney's satisfaction before representation proceeds. Willful failure to make such disclosure, if any, shall constitute grounds for cancellation and termination of this Agreement by the City Attorney.

10.3 No Conflict of Interest

Special Counsel has done a conflicts check within its firm and certifies that it has no conflict of interest with respect to its assistance to the City Attorney or has obtained a written conflicts waiver from the City Attorney, in his sole and absolute discretion.

11. NO SPECIAL DAMAGES

Notwithstanding any other provision of this Agreement, in no event shall the City Attorney be liable, regardless of whether any claim is based on contract or tort, for any special, consequential, indirect or incidental damages, including, but not limited to, lost profits, arising out of or in connection with this Agreement or the services performed in connection with this Agreement.

12. NONDISCRIMINATORY EMPLOYMENT AND BUSINESS OPPORTUNITIES PRACTICES

12.1 Special Counsel Shall Not Discriminate

In the performance of this Agreement, Special Counsel agrees not to discriminate on the basis of the fact or perception of a person's race, color, creed, religion, national origin, ancestry, age, sex, height, weight, sexual orientation, gender identity, domestic partner status, marital status, disability or Acquired Immune Deficiency Syndrome or HIV status (AIDS/HIV status) against any employee of, any City employee working with, or applicant for employment with Special Counsel, in any of Special Counsel's operations within the United States, or against any person seeking accommodations, advantages, facilities, privileges, services, or membership in all business, social, or other establishments or organizations operated by Special Counsel.

12.2 Subcontracts

Special Counsel shall incorporate by reference in all subcontracts the provisions of §§12B.2(a), 12B.2(c)-(k), and 12C.3 of the San Francisco Administrative Code (copies of which are available from the City Attorney) and shall require all subcontractors to comply with such provisions. Special Counsel's failure to comply with the obligations in this subsection shall constitute a material breach of this Agreement.

12.3 Non-Discrimination of Benefits

Special Counsel does not as of the date of this Agreement and will not during the term of this Agreement, in any of its operations in San Francisco, or where any part of this Agreement is being performed for the City Attorney elsewhere in the United States, discriminate in the provision of bereavement leave, family medical leave, health benefits, membership or membership discounts, moving expenses, pension or retirement benefits or travel benefits, as well as any benefits other than the benefits specified above, between employees with domestic partners and employees with spouses, and/or between the domestic partners and spouses of such employees, where the domestic partnership has been registered with a governmental entity pursuant to state or local law authorizing registration.

13. NOTICES

All notices or other communications to either party by the other as may be required by this Agreement shall be deemed given when made in writing and delivered in person or deposited in the United States mail as follows:

To the City Attorney:

San Francisco City Attorney's Office
City and County of San Francisco
City Hall Room 234
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Fax: (415) 554-6770
Attn: Ronald P. Flynn
Chief Deputy City Attorney

To the Special Counsel:

Hagens Berman Sobol Shapiro LLP
1918 8th Ave., Suite 3300
Seattle, WA 98101

Fax: (206) 623-0594

Attn: Steve W. Berman

or to such other address as either the City Attorney or Special Counsel may designate as its new address for such purpose by notice given to the other in accordance with the provisions of this Section 13 at least ten (10) days prior to the effective date of such change.

Any notice hereunder shall be deemed to have been given three (3) days after the date when it is mailed if sent by first class or certified mail, one day after the date it is made if sent by overnight courier, or upon the date personal delivery is made. For convenience of the parties, copies of notices may also be given by telefacsimile to the telephone number set forth herein or such other number as may be provided from time to time.

14. INDEPENDENT COUNSEL; PAYMENT OF TAXES AND OTHER EXPENSES

Independent Consultant. Special Counsel or any agent or employee of Special Counsel shall be deemed at all times to be an independent counsel and is wholly responsible for the manner in which it performs the services and work requested by the City Attorney under this

Agreement. Special Counsel or any agent or employee of Special Counsel shall not have employee status with the City, nor be entitled to participate in any plans, arrangements, or distributions by the City pertaining to or in connection with any retirement, health or other benefits that the City may offer its employees. Special Counsel or any agent or employee of Special Counsel is liable for the acts and omissions of itself, its employees and its agents. Special Counsel shall be responsible for all obligations and payments, whether imposed by federal, state or local law, including, but not limited to, FICA, income tax withholdings, unemployment compensation, insurance, and other similar responsibilities related to Special Counsel performing services and work, or any agent or employee of Special Counsel providing same. Nothing in this Agreement shall be construed as creating an employment or agency relationship between the City Attorney and Special Counsel or any agent or employee of Special Counsel.

15. INDEMNIFICATION

Special Counsel shall indemnify and save harmless the City Attorney, the City, and its officers, agents and employees from, and, if requested, shall defend them against any and all loss, cost, damage, injury, liability, and claims thereof for injury to or death of a person, including employees of Special Counsel or loss of or damage to property, arising directly or indirectly from Special Counsel's performance of this Agreement, including, but not limited to, Special Counsel's use of facilities or equipment provided by the City or others, regardless of the negligence of, and regardless of whether liability without fault is imposed or sought to be imposed on the City, except to the extent that such indemnity is void or otherwise unenforceable under applicable law in effect on or validly retroactive to the date of this Agreement, and except where such loss, damage, injury, liability or claim is the result of the active negligence or willful misconduct of the City and is not contributed to by any act of, or by any omission to perform some duty imposed by law or agreement on Special Counsel, its subconsultants as may be permitted under this Agreement or their agents or employees. The foregoing indemnity shall include, without limitation, reasonable fees of attorneys, consultants and experts and related costs and the City's costs of investigating any claims against the City.

In addition to Special Counsel's obligation to indemnifySan Francisco, Special Counsel specifically acknowledges and agrees that it has an immediate and independent obligation to defend San Francisco from any claim which actually or potentially falls within this indemnification provision, even if the allegations are or may be groundless, false or fraudulent, which obligation arises at the time such claim is tendered to Special Counsel by San Francisco and continues at all times thereafter.

Special Counsel shall indemnify and hold the City harmless from all loss and liability, including attorneys' fees, court costs and all other litigation expenses for any infringement of the patent rights, copyright, trade secret or any other proprietary right or trademark, and all other intellectual property claims of any person or persons in consequence of the use by the City, or any of its officers or agents, of articles or services to be supplied in the performance of this Agreement.

16. DEFAULT; REMEDIES

(a) Each of the following shall constitute an event of default ("Event of Default") under this Agreement:

(1) Special Counsel fails or refuses to perform or observe any term, covenant or condition contained in any of the following Sections of this Agreement: 8 (if not cured as set forth in Section 8), 9, 17, 29.3, 29.12, and 29.13.

(2) Special Counsel fails or refuses to perform or observe any other term, covenant or condition contained in this Agreement, and such default continues for a period of ten days after written notice thereof from the City to Consultant.

(3) Special Counsel (A) is generally not paying its debts as they become due, (B) files, or consents by answer or otherwise to the filing against it of, a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction, (C) makes an assignment for the benefit of its creditors, (D) consents to the appointment of a custodian, receiver, trustee or other officer with similar powers of Special Counsel or of any substantial part of Special Counsel's property or (E) takes action for the purpose of any of the foregoing.

(4) A court or government authority enters an order (A) appointing a custodian, receiver, trustee or other officer with similar powers with respect to Special Counsel or with respect to any substantial part of Special Counsel property, (B) constituting an order for relief or approving a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction or (C) ordering the dissolution, winding-up or liquidation of Special Counsel.

(b) On and after any Event of Default, the City Attorney shall have the right to exercise its legal and equitable remedies, including, without limitation, the right to terminate this Agreement or to seek specific performance. In addition, the City Attorney shall have the right (but no obligation) to cure (or cause to be cured) on behalf of Special Counsel any Event of Default; Special Counsel shall pay to the City Attorney on demand all costs and expenses incurred by the City Attorney in effecting such cure, with interest thereon from the date of such costs or expenses are incurred at the maximum rate then permitted by law. The City Attorney shall have the right to offset from any amounts due to Special Counsel under this Agreement or any other agreement between the City Attorney and Special Counsel all damages, losses, costs or expenses incurred by the City as a result of such Event of Default and any liquidated damages due from Special Counsel pursuant to the terms of this Agreement or any other agreement.

(c) All remedies provided for in this Agreement may be exercised individually or in combination with any other remedy available hereunder or under applicable laws, rules and regulations. The exercise of any remedy shall not preclude or in any way be deemed to waive any other remedy.

17. SAN FRANCISCO'S PROPRIETARY OR CONFIDENTIAL INFORMATION

Special Counsel understands and agrees that, in the performance of the work or services under this Agreement or in contemplation thereof, Special Counsel will have access to private or confidential information, including, without limitation, attorney work product and information subject to the attorney-client privilege, which may be owned or controlled by San Francisco and that such information may contain proprietary or confidential details, the disclosure of which to third parties may be damaging to San Francisco. Special Counsel agrees that all information created by Special Counsel for San Francisco or disclosed by San Francisco to Special Counsel shall be held in confidence and used only in performance of the Agreement. This section shall survive the termination or expiration of this Agreement.

18. OWNERSHIP OF RESULTS

Any interest of Special Counsel or its subconsultants, in drawings, plans, specifications, blueprints, studies, reports, memoranda, computation sheets, computer files and media or other documents prepared by Consultant or its subconsultants in connection with services to be performed under this Agreement, shall become the property of and will be transmitted to the City Attorney. Any such work product shall be attorney work product and subject to the attorney-client privilege of the City Attorney.

19. WORKS FOR HIRE

If, in connection with services performed under this Agreement, Special Counsel or its subconsultants create artwork, copy, posters, billboards, photographs, videotapes, audiotapes, systems designs, software, reports, diagrams, surveys, blueprints, source codes or any other original works of authorship, such works of authorship shall be works for hire as defined under Title 17 of the United States Code, and all copyrights in such works are the property of the City. If it is ever determined that any works created by Special Counsel or its subconsultants under this Agreement are not works for hire under U.S. law, Special Counsel hereby assigns all copyrights to such works to the City, and agrees to provide any material and execute any documents necessary to effectuate such assignment. With the approval of the City Attorney, Special Counsel may retain and use copies of such works for reference and as documentation of its experience and capabilities.

20. AUDIT AND INSPECTION OF RECORDS

Special Counsel agrees to maintain and make available to the City Attorney, during regular business hours, accurate books and accounting records relating to its work under this Agreement. Special Counsel will permit the City Attorney to audit, examine and make excerpts and transcripts from such books and records, and to make audits of all invoices, materials, payrolls, records or personnel and other data related to all other matters covered by this Agreement, whether funded in whole or in part under this Agreement. Special Counsel shall maintain such data and records in an accessible location and condition for a period of not less than five years after final payment under this Agreement or until after final audit has been resolved, whichever is later.

21. NON-WAIVER OF RIGHTS

The omission by either party at any time to enforce any default or right reserved to it, or to require performance of any of the terms, covenants, or provisions hereof by the other party at the time designated, shall not be a waiver of any such default or right to which the party is entitled, nor shall it in any way affect the right of the party to enforce such provisions thereafter.

22. OMITTED

23. OMITTED

24. OMITTED

25. DRUG-FREE WORKPLACE POLICY

Special Counsel acknowledges that pursuant to the Federal Drug-Free Workplace Act of 1989, the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited on City premises. Special Counsel agrees that any violation of this prohibition by Special Counsel, its employees, agents or assigns will be deemed a material breach of this Agreement.

26. OMITTED

27. COMPLIANCE WITH AMERICANS WITH DISABILITIES ACT

Special Counsel acknowledges that, .pursuant to the Americans with Disabilities Act (ADA), programs, services and other activities provided by a public entity to the public, whether directly or through a Special Counsel, must be accessible to the disabled public. Special Counsel shall provide the services specified in this Agreement in a manner that complies with the ADA and any and all other applicable federal, state and local disability rights legislation. Special Counsel agrees not to discriminate against disabled persons in the provision of services, benefits or activities provided under this Agreement and further agrees that any violation of this prohibition on the part of Special Counsel, its employees, agents or assigns will constitute a material breach of this Agreement.

28. OMITTED

29. GENERAL CONDITIONS

29.1 Severability

Any provision or portion of this Agreement prohibited as unlawful or unenforceable under any applicable law of any jurisdiction shall as to such jurisdiction be ineffective without affecting other provisions of this Agreement. If the provisions of such applicable law may be waived, they are hereby waived to the end that this Agreement may be deemed to be a valid and binding Agreement enforceable in accordance with its terms.

29.2 Governing Law

The formation, interpretation and performance of this Agreement shall be governed by the laws of the State of California. The exclusive venue for all litigation relative to the formation, interpretation and performance of this Agreement shall be the San Francisco Superior Court. Special Counsel hereby waives the provisions of California Code of Civil Procedure section 394, which could, if otherwise applicable, give Special Counsel the right to move the venue of any such proceeding from San Francisco to a neutral county.

29.3 Compliance with Laws

Special Counsel shall keep itself fully informed of the City's Charter, codes, ordinances and regulations of the City and of all state and federal laws in any manner affecting the performance of this Agreement and must at all times comply with such codes, ordinances, and regulations and all applicable laws as they may be amended from time to time.

29.4 Amendments

Neither this Agreement nor any term or provisions hereof may be changed, waived, discharged, or terminated, except by a written instrument signed by both parties hereto or except as otherwise expressly provided in this Agreement.

29.5 Survival

The following sections shall survive any termination, expiration or cancellation of this Agreement: 8, 11, 14, 15, 17-19, 29.1, 29.2, 29.4, and 29.13.

29.6 Approvals by City Attorney; Point of Contact

Except as otherwise provided in this Agreement or as otherwise required by the City's Charter, all approvals or consents requested or required hereunder may be given by the City Attorney or his designee. All such approvals or consents may be given or withheld in the City Attorney's sole discretion, unless otherwise expressly provided. Silence shall not be considered approval of the City Attorney for any purposes hereof. Any legal advice given by Special Counsel with respect to this representation shall be rendered to the City Attorney, or the City Attorney's designee.

29.7 Special Counsel Responsibility

Special Counsel shall report to, and work under the direction and control of the City Attorney or his designee in the performance of the services. Special Counsel agrees to be solely responsible, however, for its own actions and those of its subordinates and subconsultants throughout the term of this Agreement.

29.8 Notification of Limitations on Contributions

Through execution of this Agreement, Special Counsel acknowledges that it is familiar with section 1.126 of the City's Campaign and Governmental Conduct Code, which prohibits any person who contracts with the City for the rendition of personal services, for the furnishing of any material, supplies or equipment, for the sale or lease of any land or building, or for a grant, loan or loan guarantee, from making any campaign contribution to (1) an individual holding a City elective office if the contract must be approved by the individual, a board on which that individual serves, or a board on which an appointee of that individual serves, (2) a candidate for the office held by such individual, or (3) a committee controlled by such

individual, at any time from the commencement of negotiations for the contract until the later of either the termination of negotiations for such contract or six months after the date the contract is approved. Special Counsel acknowledges that the foregoing restriction applies only if the contract or a combination or series of contracts approved by the same individual or board in a fiscal year have a total anticipated or actual value of fifty thousand dollars ($50,000) or more. Special Counsel further acknowledges that the prohibition on contributions applies to each prospective party to the contract; each member of Special Counsel's board of directors; Special Counsel's chairperson, chief executive officer, chief financial officer and chief operating officer; any person with an ownership interest of more than 20 percent in Special Counsel; any subconsultant listed in the bid or contact; and any committee that is sponsored or controlled by Special Counsel. Additionally, Special Counsel acknowledges that Special Counsel must inform each of the persons described in the preceding sentence of the prohibitions contained in Section 1.126.

29.9 Execution in Counterparts

This Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same Agreement.

29.10 Requiring Minimum Compensation for Covered Employees

Special Counsel agrees to comply fully with and be bound by all of the provisions of the Minimum Compensation Ordinance (MCO), as set forth in San Francisco Administrative Code Chapter 12P (Chapter 12P), including the remedies provided, and implementing guidelines and rules. The provisions of Chapter 12P are incorporated herein by reference and made a part of this Agreement as though fully set forth. The text of the MCO is available on the web at www.sfgov.orgiolse/mco.

29.11 Requiring Health Benefits for Covered Employees

Special Counsel agrees to comply fully with and be bound by all of the provisions of the Health Care Accountability Ordinance (HCAO), as set forth in San Francisco Administrative Code Chapter 12Q, including the remedies provided, and implementing regulations, as the same may be amended from time to time. The provisions of Chapter 12Q are incorporated by reference and made a part of this Agreement as though fully set forth herein. The text of the HCAO is available on the web at www.sfgov.org/olse.

29.12 Prohibition on Political Activity with City Funds

In accordance with San Francisco Administrative Code Chapter 12.G, Special Counsel may not participate in, support, or attempt to influence any political campaign for a candidate or for a ballot measure (collectively, "Political Activity") in the performance of the services provided under this Agreement. Special Counsel agrees to comply with San Francisco Administrative Code Chapter 12.G and any implementing rules and regulations promulgated by the City's Controller. The terms and provisions of Chapter 12.0 are incorporated herein by this reference. In the event Special Counsel violates the provisions of this section, the City may, in addition to any other rights or remedies available hereunder, (i) terminate this Agreement, and (ii) prohibit Special Counsel from bidding on or receiving any new City contract for a period of two (2) years. The Controller will not consider Special Counsel's use of profit as a violation of this section.

29.13 Protection of Private Information

Special Counsel has read and agrees to the terms set forth in the San Francisco Administrative Code Sections 12M.2, 'Nondisclosure of Private Information," and 12M.3, 'Enforcement" of Administrative Code Chapter 12M, "Protection of Private Information," which are incorporated herein as if fully set forth. Special Counsel agrees that any failure of Special Counsel to comply with the requirements of Section 12142 of this Chapter shall be a material breach or the Contract. In such an event, in addition to any other remedies available to it under equity or law, the City may terminate the Contract, bring a false claim action against the Special Counsel pursuant to Chapter 6 or Chapter 21 or the Administrative Code, or debar the Special Counsel.

29.14 Interpretation of Agreement

This Agreement has been drafted through a cooperative effort of both parties, and both parties have had an opportunity to have the Agreement reviewed and revised by legal counsel. No party shall be considered the drafter of this Agreement, and no presumption or rule that an ambiguity shall be construed against the party drafting the clause shall apply to the interpretation or enforcement of this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day first mentioned above.

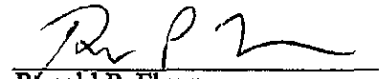
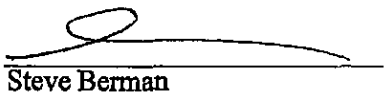
CITY ATTORNEY	SPECIAL COUNSEL
CITY ATTORNEY DENNIS J. HERRERA	**HAGENS BERMAN SOBOL SHAPIRO**
By:  Rónald P. Flynn Chief Deputy City Attorney	By:  Steve Berman Hagens Berman Sobol Shapiro

Exhibit S15

You can join the call to action be signing our petition to the DOJ here.

Leaders of many of the country's largest environmental groups, civil rights organizations, and indigenous peoples movements issued a joint letter today calling on the Department of Justice to investigate ExxonMobil, after revelations that the company knew about climate change as early as the 1970s, but chose to mislead the public about the crisis in order to maximize their profits from fossil fuels.

"Despite Exxon's wealth and power, people were eager to sign on to this statement," said Bill McKibben, co-founder of 350.org. "Anyone who's lived through 25 years of phony climate debate, or who's seen the toll climate change is already taking on the most vulnerable communities, has been seething at these revelations. It reminds me of the spirit at the start of the Keystone battle."

The letter is a remarkable show of unity, with groups ranging from the Audubon Society to the Foundation of Women in Hip Hop, and will help keep the spotlight on Exxon as new revelations continue to emerge. Over the last week, pressure has continued to build for a federal investigation, with Hillary Clinton, Bernie Sanders, and Martin O'Malley all calling on the DOJ to act.

Here is the full text of the letter and list of signatories:

> Dear Attorney General Lynch,
>
> As leaders of some of the nation's environmental, indigenous peoples and civil rights groups, we're writing to ask that you initiate a federal probe into the conduct of ExxonMobil. New revelations in the Los Angeles Times and the Pulitzer-prize-winning InsideClimate News strongly suggest that the corporation knew about the dangers of climate change even as it funded efforts at climate denial and systematically misled the public.
>
> Given the damage that has already occurred from climate change—particularly in the poorest communities of our nation and our planet—and that will certainly occur going forward, these revelations should be viewed with the utmost apprehension. They are reminiscent—though potentially much greater in scale—than similar revelations about the tobacco industry.
>
> These journalists have provided a remarkable roadmap to this corporation's potential misconduct. We would ask that you follow that map wherever it may lead, employing all the tools at your disposal to uncover the truth.

Signed,

Margie Alt , Executive Director of Environment America

Rameen Aminzadeh, Beats Rhymes & Relief

Ana Maria Archila, Andrew Friedman, Brian Kettenring , Popular Democracy

Kenny Ausubel , Nina Simons, Founders of Bioneers

Lydia A vila, Energy Action Coalition

Darryl Baskerville , Greensboro4Justice

Jimmy Betts , Beyond Extreme Energy

Sally Bingham , President and Founder of Interfaith Power and Light

May Boeve, Bill McKibben , Founders of 350.org

Sr. Joan Brown , New Mexico Interfaith Power and Light

Dominique Browning , Moms Clean Air Force

Michael Brune , Executive Director of Sierra Club

Robert Bullard , Author and John Muir Award winner, 2013

Anne Butterfield , President of Clean Energy Action

Andrea Carmen , Executive Director of International Indian Treaty Council

Patrick Carolan , Franciscan Action Network

Piper Carter , The Foundation of Women in Hip Hop

Sr. Ilia Delio, OSF , PhD, Josephine C. Connelly Endowed Chair in Theology at Villanova University

Faith Gemmill , Executive Director of REDOIL (Resisting Environmental Destruction on Indigenous Lands)

Tom Goldtooth, Executive Director of Indigenous Environmental Network

Russell Greene , J.A.M.N.

Christopher Hale, Catholics in Alliance for the Common Good

Ross Hammond , ForestEthics

James Hansen , Director, Climate Science, Awareness and Solutions Program, Columbia University Earth Institute

Christina Hardy , Neighbors United of Southeast Greensboro, NC

Reverend Fletcher Harper , Executive Director of Greenfaith

Wenonah Haute r, Executive Director of Food and Water Watch

David Helvarg , Executive Director of Blue Frontier

Katie Hoffman, Resilience Collaborative, LLC

Lisa Hoyos , Director and Co-Founder of Climate Parents

Reverend Nelson Johnson, Beloved Community Center

Gene Karpinski , President of League of Conservation Voters

Ken Kimmell , President of the Union of Concerned Scientists

Jane Kleeb , Bold Nebraska

Deacon Jerry Kotas , Colorado Interfaith Power and Light

Steve Kretzmann , Executive Director and Founder of Oil Change International
Fred Krupp , President of Environmental Defense Fund
Winona LaDuke , Executive Director of Honor the Earth
Annie Leonard , Executive Director of Greenpeace USA
Patti L ynn, Executive Director of Corporate Accountability International
Richard Mabion , President of the Kansas City, Kansas NAACP Branch, and the first Black ExCom Board member for the Kansas Sierra Club (2012)
Mark Magaña ,GreenLatinos
RL Miller , President of Climate Hawks Vote
Toure Muhammad, Bean Soup Times
Matt Nelson , Managing Director of Presente.org
Brant Olson , Campaign Director at Climate Truth
Erich Pica , President of Friends of the Earth
Brandon Ross, Freddie Gray Project
Aldo Seoane , Wica Agli
Cindy Shogan , Executive Director of Alaska Wilderness League
Reverend Fred Small , President of Creation Coalition
Gus Speth , Former Dean Yale School of Forestry and the Environment
Tom Steyer , Founder of NextGen Climate
Rich Stolz , Executive Director of OneAmerica
Kieran Suckling , Executive Director of the Center for Biological Diversity
Rhea Suh , President of the Natural Resources Defense Council
Franz Teplitz, Green America
Vien Truong , Director of Green for All
Joe Uehlein , Executive Director of Labor Network for Sustainability
Trip V an Noppen , President of Earthjustice
Clara Vonrich, Divest-Invest Philanthropy
Dr. Jalonne L. White-Newsome , Director of Federal Policy of WE ACT for Environmental Justice
Maureen Y ancey "Ma Dukes", J Dilla Foundation
David Y arnold , President of the Audubon Society
Reverend Lennox Y earwood , President of Hip Hop Caucus
Elijah Zarlin , Climate Campaigns Director, CREDO
A Philip Randolph Institute
Divest Invest Individual
Ecumenical Poverty Initiative
The Gathering for Justice/Justice League NYC

Exhibit S16

NGO Letter of Support to State Attorneys General

The letter:

Thanks to the Pulitzer Prize-nominated investigations by the Los Angeles Times and InsideClimate News, the public now knows that fossil fuel companies like Exxon knew about the consequences of burning fossil fuels and climate change for nearly half a century. Instead of sounding the alarm however, these companies spent decades and millions of dollars distorting the truth.

The dire climate warnings Exxon ignored and denied have come to be. The National Oceanic and Atmospheric Administration (NOAA) once again declared the past year to be the hottest year in recorded history As a result, NOAA says the United States faced extreme drought, flooding, wildfires, and severe storms which killed 155 people and are estimated to have caused more than $1 billion in economic losses in 2015 alone. Not to mention the thousands of families who had to start over after losing their homes, businesses, or both.

The corporate greed and climate denial by fossil fuel companies has cost the world a generation of opportunity to change course and address what Exxon's own scientists called the "catastrophic" consequences of climate change.

The undersigned organizations firmly support U.S. state attorneys general for investigating corporations like Exxon for their possible past and ongoing climate fraud that is destroying our planet.

The signers:

Greenpeace USA
350.org
Corporate Accountability International
ClimateTruth.org
CREDO
Public Citizen
Climate Hawks Vote

Franciscan Action Network
Environmental Action
SumOfUs
Government Accountability Project
Sierra Club
MoveOn.org
Environment America
NextGen Climate
Presente.org

Additional resources:

#ExxonKnew Editorials

LA Times – House GOP members pursue an objectionable defense of fossil fuels

Boston Globe – Congressional bullying on behalf of Big Oil

Washington Post – Exxon-Mobil is abusing the first amendment

Alaska Dispatch-News – If Alaska has shifted policy on global warming, good

San Antonio Express-News – Irony in Smith's latest subpoenas

Essential #ExxonKnew Investigation News Articles

Bloomberg – Can ExxonMobil Be Found Liable for Misleading the Public on Climate Change?

Huffington Post – House Republicans Will Investigate Their Ability To Investigate Investigations

New York Times – Exxon Mobil Fraud Inquiry Said to Focus More on Future Than Past

Policy Papers

Massachusetts AG Subpoena Response

New York AG Subpoena Response

Abrams Institute at Yale Law School Letter Objects to Science Advocacy Organization Subpoenas

Exhibit S17

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GAIN Jobs via JobsthatareLEFT ›

JOB: Deputy Scheduler for Fahr, LLC, San Francisco

1 post by 1 author

h...@fahrllc.com 8/19/15

Please email a cover letter and resume to H...@fahrllc.com.

About us:

Fahr LLC acts as the "umbrella" entity to manage and support a variety of entities and efforts related to climate change, advanced energy, sustainable food systems, and socially responsible finance. The entities and efforts include NextGen Climate's political and policy groups, various philanthropic funds, The Ranch, The Family Office's operational and investment activities, and various affiliated entities and projects.

We are the nexus between a handful of exciting and powerful efforts aimed to curb climate change and make the world a better place. We are a group of smart and passionate people from diverse backgrounds who are united around shared values about our future and a core belief that we have the power to change the course of history. As a team, we work together to strategize how best to maximize our collective impact.

About this role:

The many demands and commitments facing The Principal make his time a precious commodity, and the job of the Deputy Scheduler is to support The Principal and the Director of Strategic Planning and Scheduling in managing that resource. The Principal must rely on the scheduling team to strategically administer his time in a way that maximizes his strengths while driving the goals and objectives of him and the organization.

Responsibilities:

- Scheduling: Serve as secondary point of contact for incoming scheduling requests appropriately for approval and responses; schedule meeting, travel and speech preps with The Principal and relevant team members; lead and schedule

Exhibit S18

efile GRAPHIC print - DO NOT PROCESS | As Filed Data - | DLN: 93491285008135

Form **990-PF**

Department of the Treasury
Internal Revenue Service

Return of Private Foundation

or Section 4947(a)(1) Trust Treated as Private Foundation

▶ Do not enter social security numbers on this form as it may be made public.
▶ Information about Form 990-PF and its instructions is at www.irs.gov/form990pf.

OMB No 1545-0052

2014

Open to Public Inspection

For calendar year 2014, or tax year beginning 01-01-2014 , and ending 12-31-2014

Name of foundation
TOMKAT CHARITABLE TRUST

A Employer identification number
38-6866542

Number and street (or P O box number if mail is not delivered to street address)
111 SUTTER STREET 10TH FLOOR

Room/suite

B Telephone number (see instructions)
(415) 956-9588

City or town, state or province, country, and ZIP or foreign postal code
SAN FRANCISCO, CA 94104

C If exemption application is pending, check here ▶ ☐

G Check all that apply ☐ Initial return ☐ Initial return of a former public charity ☐ Final return ☐ Amended return ☑ Address change ☐ Name change

D 1. Foreign organizations, check here ▶ ☐

2. Foreign organizations meeting the 85% test, check here and attach computation ▶ ☐

H Check type of organization ☑ Section 501(c)(3) exempt private foundation ☐ Section 4947(a)(1) nonexempt charitable trust ☐ Other taxable private foundation

E If private foundation status was terminated under section 507(b)(1)(A), check here ▶ ☐

I Fair market value of all assets at end of year *(from Part II, col. (c), line 16)* ▶$ 132,420,554

J Accounting method ☐ Cash ☑ Accrual ☐ Other (specify) *(Part I, column (d) must be on cash basis.)*

F If the foundation is in a 60-month termination under section 507(b)(1)(B), check here ▶ ☐

Part I **Analysis of Revenue and Expenses** *(The total of amounts in columns (b), (c), and (d) may not necessarily equal the amounts in column (a) (see instructions))*

			(a) Revenue and expenses per books	(b) Net investment income	(c) Adjusted net income	(d) Disbursements for charitable purposes (cash basis only)
Revenue	1	Contributions, gifts, grants, etc , received (attach schedule)	6,618,138			
	2	Check ▶ ☐ if the foundation is **not** required to attach Sch B				
	3	Interest on savings and temporary cash investments	44,478	44,478		
	4	Dividends and interest from securities	15,106	15,106		
	5a	Gross rents				
	b	Net rental income or (loss)				
	6a	Net gain or (loss) from sale of assets not on line 10	529			
	b	Gross sales price for all assets on line 6a				
	7	Capital gain net income (from Part IV, line 2)		9,510,157		
	8	Net short-term capital gain				
	9	Income modifications				
	10a	Gross sales less returns and allowances				
	b	Less Cost of goods sold				
	c	Gross profit or (loss) (attach schedule)				
	11	Other income (attach schedule)	42,490	1,521,058		
	12	**Total.** Add lines 1 through 11	6,720,741	11,090,799		
Operating and Administrative Expenses	13	Compensation of officers, directors, trustees, etc	166,716	0		166,716
	14	Other employee salaries and wages	38,164	0		38,164
	15	Pension plans, employee benefits	62,298	0		56,017
	16a	Legal fees (attach schedule)	115,609	57,804		55,874
	b	Accounting fees (attach schedule)	144,426	72,213		72,213
	c	Other professional fees (attach schedule)	66,527	0		66,527
	17	Interest				
	18	Taxes (attach schedule) (see instructions)	74,994	43,728		10
	19	Depreciation (attach schedule) and depletion				
	20	Occupancy				
	21	Travel, conferences, and meetings	38,408	0		38,408
	22	Printing and publications				
	23	Other expenses (attach schedule)	58,054	2,052,517		34,376
	24	**Total operating and administrative expenses.** Add lines 13 through 23	765,196	2,226,262		528,305
	25	Contributions, gifts, grants paid	21,369,706			28,530,057
	26	**Total expenses and disbursements.** Add lines 24 and 25	22,134,902	2,226,262		29,058,362
	27	Subtract line 26 from line 12				
	a	**Excess of revenue over expenses and disbursements**	-15,414,161			
	b	**Net investment income** (if negative, enter -0-)		8,864,537		
	c	**Adjusted net income** (if negative, enter -0-)				

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Part II Balance Sheets	Attached schedules and amounts in the description column should be for end-of-year amounts only (See instructions)	Beginning of year (a) Book Value	End of year (b) Book Value	End of year (c) Fair Market Value
Assets	1 Cash—non-interest-bearing			
	2 Savings and temporary cash investments	26,942,960	25,274,865	25,274,865
	3 Accounts receivable ▶ 65,000			
	Less allowance for doubtful accounts ▶		65,000	65,000
	4 Pledges receivable ▶			
	Less allowance for doubtful accounts ▶			
	5 Grants receivable			
	6 Receivables due from officers, directors, trustees, and other disqualified persons (attach schedule) (see instructions)			
	7 Other notes and loans receivable (attach schedule) ▶ 1,977,335			
	Less allowance for doubtful accounts ▶ 0	0	1,977,335	1,977,335
	8 Inventories for sale or use			
	9 Prepaid expenses and deferred charges			
	10a Investments—U S and state government obligations (attach schedule)			
	b Investments—corporate stock (attach schedule)	0	9,175	9,175
	c Investments—corporate bonds (attach schedule)			
	11 Investments—land, buildings, and equipment basis ▶			
	Less accumulated depreciation (attach schedule) ▶			
	12 Investments—mortgage loans			
	13 Investments—other (attach schedule)	124,166,070	105,094,179	105,094,179
	14 Land, buildings, and equipment basis ▶			
	Less accumulated depreciation (attach schedule) ▶			
	15 Other assets (describe ▶)			
	16 **Total assets** (to be completed by all filers—see the instructions Also, see page 1, item I)	151,109,030	132,420,554	132,420,554
Liabilities	17 Accounts payable and accrued expenses	31,400	39,611	
	18 Grants payable	8,685,351	1,525,000	
	19 Deferred revenue			
	20 Loans from officers, directors, trustees, and other disqualified persons			
	21 Mortgages and other notes payable (attach schedule)			
	22 Other liabilities (describe ▶)			
	23 **Total liabilities** (add lines 17 through 22)	8,716,751	1,564,611	
Net Assets or Fund Balances	**Foundations that follow SFAS 117, check here** ▶ ☑ **and complete lines 24 through 26 and lines 30 and 31.**			
	24 Unrestricted	142,392,279	130,855,943	
	25 Temporarily restricted			
	26 Permanently restricted			
	Foundations that do not follow SFAS 117, check here ▶ ☐ **and complete lines 27 through 31.**			
	27 Capital stock, trust principal, or current funds			
	28 Paid-in or capital surplus, or land, bldg , and equipment fund			
	29 Retained earnings, accumulated income, endowment, or other funds			
	30 **Total net assets or fund balances** (see instructions)	142,392,279	130,855,943	
	31 **Total liabilities and net assets/fund balances** (see instructions)	151,109,030	132,420,554	

Part III Analysis of Changes in Net Assets or Fund Balances

1	Total net assets or fund balances at beginning of year—Part II, column (a), line 30 (must agree with end-of-year figure reported on prior year's return)	1	142,392,279
2	Enter amount from Part I, line 27a	2	-15,414,161
3	Other increases not included in line 2 (itemize) ▶	3	3,877,825
4	Add lines 1, 2, and 3	4	130,855,943
5	Decreases not included in line 2 (itemize) ▶	5	0
6	Total net assets or fund balances at end of year (line 4 minus line 5)—Part II, column (b), line 30	6	130,855,943

Part IV Capital Gains and Losses for Tax on Investment Income

	(a) List and describe the kind(s) of property sold (e g , real estate, 2-story brick warehouse, or common stock, 200 shs MLC Co)	(b) How acquired P—Purchase D—Donation	(c) Date acquired (mo , day, yr)	(d) Date sold (mo , day, yr)
1a	PARTNERSHIP GAIN (LOSS)	P		
b	PORTFOLIO GAIN (LOSS)	P		
c	SALE OF PARTNERSHIP INTERESTS	P		
d				
e				

	(e) Gross sales price	(f) Depreciation allowed (or allowable)	(g) Cost or other basis plus expense of sale	(h) Gain or (loss) (e) plus (f) minus (g)
a				6,107,170
b				529
c				3,402,458
d				
e				

	Complete only for assets showing gain in column (h) and owned by the foundation on 12/31/69			(l) Gains (Col (h) gain minus col (k), but not less than -0-) or Losses (from col (h))
	(i) F M V as of 12/31/69	(j) Adjusted basis as of 12/31/69	(k) Excess of col (i) over col (j), if any	
a				6,107,170
b				529
c				3,402,458
d				
e				

2	Capital gain net income or (net capital loss) { If gain, also enter in Part I, line 7 / If (loss), enter -0- in Part I, line 7 }	2	9,510,157
3	Net short-term capital gain or (loss) as defined in sections 1222(5) and (6) If gain, also enter in Part I, line 8, column (c) (see instructions) If (loss), enter -0- in Part I, line 8	3	

Part V Qualification Under Section 4940(e) for Reduced Tax on Net Investment Income

(For optional use by domestic private foundations subject to the section 4940(a) tax on net investment income)

If section 4940(d)(2) applies, leave this part blank

Was the foundation liable for the section 4942 tax on the distributable amount of any year in the base period? ☐ Yes ☑ No
If "Yes," the foundation does not qualify under section 4940(e) Do not complete this part

1 Enter the appropriate amount in each column for each year, see instructions before making any entries

(a) Base period years Calendar year (or tax year beginning in)	(b) Adjusted qualifying distributions	(c) Net value of noncharitable-use assets	(d) Distribution ratio (col (b) divided by col (c))
2013	36,005,462	124,017,918	0 290325
2012	27,798,968	176,142,183	0 157821
2011	10,872,603	198,612,845	0 054743
2010	5,580,440	206,987,132	0 026960
2009	5,545,966	184,087,913	0 030127

2	**Total** of line 1, column (d)	2	0 559976
3	Average distribution ratio for the 5-year base period—divide the total on line 2 by 5, or by the number of years the foundation has been in existence if less than 5 years	3	0 111995
4	Enter the net value of noncharitable-use assets for 2014 from Part X, line 5	4	108,233,218
5	Multiply line 4 by line 3	5	12,121,579
6	Enter 1% of net investment income (1% of Part I, line 27b)	6	88,645
7	Add lines 5 and 6	7	12,210,224
8	Enter qualifying distributions from Part XII, line 4	8	29,058,362

If line 8 is equal to or greater than line 7, check the box in Part VI, line 1b, and complete that part using a 1% tax rate See the Part VI instructions

Part VI Excise Tax Based on Investment Income (Section 4940(a), 4940(b), 4940(e), or 4948—see page 18 of the instructions)

1a	Exempt operating foundations described in section 4940(d)(2), check here ▶ ☐ and enter "N/A" on line 1. Date of ruling or determination letter _____ (attach copy of letter if necessary–see instructions)			
b	Domestic foundations that meet the section 4940(e) requirements in Part V, check here ▶ ☑ and enter 1% of Part I, line 27b		1	88,645
c	All other domestic foundations enter 2% of line 27b Exempt foreign organizations enter 4% of Part I, line 12, col (b)			
2	Tax under section 511 (domestic section 4947(a)(1) trusts and taxable foundations only Others enter -0-)		2	0
3	Add lines 1 and 2		3	88,645
4	Subtitle A (income) tax (domestic section 4947(a)(1) trusts and taxable foundations only Others enter -0-)		4	0
5	**Tax based on investment income.** Subtract line 4 from line 3 If zero or less, enter -0-		5	88,645
6	Credits/Payments			
a	2014 estimated tax payments and 2013 overpayment credited to 2014	6a 225,231		
b	Exempt foreign organizations—tax withheld at source	6b		
c	Tax paid with application for extension of time to file (Form 8868)	6c		
d	Backup withholding erroneously withheld	6d		
7	Total credits and payments Add lines 6a through 6d		7	225,231
8	Enter any **penalty** for underpayment of estimated tax Check here ☐ if Form 2220 is attached		8	
9	**Tax due.** If the total of lines 5 and 8 is more than line 7, enter **amount owed** ▶		9	
10	**Overpayment.** If line 7 is more than the total of lines 5 and 8, enter the **amount overpaid.** ▶		10	136,586
11	Enter the amount of line 10 to be **Credited to 2015 estimated tax** ▶ 136,586 **Refunded** ▶		11	0

Part VII-A Statements Regarding Activities

			Yes	No
1a	During the tax year, did the foundation attempt to influence any national, state, or local legislation or did it participate or intervene in any political campaign?	1a		No
b	Did it spend more than $100 during the year (either directly or indirectly) for political purposes (see Instructions for definition)?	1b		No
	*If the answer is "Yes" to **1a** or **1b**, attach a detailed description of the activities and copies of any materials published or distributed by the foundation in connection with the activities.*			
c	Did the foundation file **Form 1120-POL** for this year?	1c		No
d	Enter the amount (if any) of tax on political expenditures (section 4955) imposed during the year (1) On the foundation ▶ $ 0 (2) On foundation managers ▶ $ 0			
e	Enter the reimbursement (if any) paid by the foundation during the year for political expenditure tax imposed on foundation managers ▶ $ 0			
2	Has the foundation engaged in any activities that have not previously been reported to the IRS? *If "Yes," attach a detailed description of the activities.*	2		No
3	Has the foundation made any changes, not previously reported to the IRS, in its governing instrument, articles of incorporation, or bylaws, or other similar instruments? *If "Yes," attach a conformed copy of the changes*	3		No
4a	Did the foundation have unrelated business gross income of $1,000 or more during the year?	4a	Yes	
b	If "Yes," has it filed a tax return on **Form 990-T** for this year?	4b	Yes	
5	Was there a liquidation, termination, dissolution, or substantial contraction during the year? *If "Yes," attach the statement required by General Instruction T.*	5		No
6	Are the requirements of section 508(e) (relating to sections 4941 through 4945) satisfied either • By language in the governing instrument, or • By state legislation that effectively amends the governing instrument so that no mandatory directions that conflict with the state law remain in the governing instrument?	6	Yes	
7	Did the foundation have at least $5,000 in assets at any time during the year? *If "Yes," complete Part II, col. (c), and Part XV.*	7	Yes	
8a	Enter the states to which the foundation reports or with which it is registered (see instructions) ▶ CA			
b	If the answer is "Yes" to line 7, has the foundation furnished a copy of Form 990-PF to the Attorney General (or designate) of each state as required by General Instruction G? *If "No," attach explanation*	8b	Yes	
9	Is the foundation claiming status as a private operating foundation within the meaning of section 4942(j)(3) or 4942(j)(5) for calendar year 2014 or the taxable year beginning in 2014 (see instructions for Part XIV)? *If "Yes," complete Part XIV*	9		No
10	Did any persons become substantial contributors during the tax year? *If "Yes," attach a schedule listing their names and addresses.*	10		No

Part VII-A Statements Regarding Activities *(continued)*

11	At any time during the year, did the foundation, directly or indirectly, own a controlled entity within the meaning of section 512(b)(13)? If "Yes," attach schedule (see instructions)	11	Yes	
12	Did the foundation make a distribution to a donor advised fund over which the foundation or a disqualified person had advisory privileges? If "Yes," attach statement (see instructions)	12		No
13	Did the foundation comply with the public inspection requirements for its annual returns and exemption application?	13	Yes	

Website address ▶ N/A

14 The books are in care of ▶ THE TRUSTEE Telephone no ▶ (415) 956-9588

Located at ▶ ONE MARITIME PLAZA 5TH FLOOR SAN FRANCISCO CA ZIP+4 ▶ 94111

15 Section 4947(a)(1) nonexempt charitable trusts filing Form 990-PF in lieu of **Form 1041** —Check here ▶ ☐ and enter the amount of tax-exempt interest received or accrued during the year ▶ 15

16	At any time during calendar year 2014, did the foundation have an interest in or a signature or other authority over a bank, securities, or other financial account in a foreign country?		Yes	No
		16		No
	See instructions for exceptions and filing requirements for FinCEN Form 114, Report of Foreign Bank and Financial Accounts (FBAR) If "Yes", enter the name of the foreign country ▶			

Part VII-B Statements Regarding Activities for Which Form 4720 May Be Required

			Yes	No
	File Form 4720 if any item is checked in the "Yes" column, unless an exception applies.			
1a	During the year did the foundation (either directly or indirectly)			
	(1) Engage in the sale or exchange, or leasing of property with a disqualified person? ☐ Yes ☑ No			
	(2) Borrow money from, lend money to, or otherwise extend credit to (or accept it from) a disqualified person? ☐ Yes ☑ No			
	(3) Furnish goods, services, or facilities to (or accept them from) a disqualified person? ☑ Yes ☐ No			
	(4) Pay compensation to, or pay or reimburse the expenses of, a disqualified person? ☐ Yes ☑ No			
	(5) Transfer any income or assets to a disqualified person (or make any of either available for the benefit or use of a disqualified person)? ☐ Yes ☑ No			
	(6) Agree to pay money or property to a government official? (**Exception.** Check "No" if the foundation agreed to make a grant to or to employ the official for a period after termination of government service, if terminating within 90 days). ☐ Yes ☑ No			
b	If any answer is "Yes" to 1a(1)–(6), did **any** of the acts fail to qualify under the exceptions described in Regulations section 53 4941(d)-3 or in a current notice regarding disaster assistance (see instructions)?	1b		No
	Organizations relying on a current notice regarding disaster assistance check here ▶ ☐			
c	Did the foundation engage in a prior year in any of the acts described in 1a, other than excepted acts, that were not corrected before the first day of the tax year beginning in 2014?	1c		No
2	Taxes on failure to distribute income (section 4942) (does not apply for years the foundation was a private operating foundation defined in section 4942(j)(3) or 4942(j)(5))			
a	At the end of tax year 2014, did the foundation have any undistributed income (lines 6d and 6e, Part XIII) for tax year(s) beginning before 2014? ☐ Yes ☑ No			
	If "Yes," list the years ▶ 20____, 20____, 20____, 20____			
b	Are there any years listed in 2a for which the foundation is **not** applying the provisions of section 4942(a)(2) (relating to incorrect valuation of assets) to the year's undistributed income? (If applying section 4942(a)(2) to **all** years listed, answer "No" and attach statement—see instructions)	2b		
c	If the provisions of section 4942(a)(2) are being applied to **any** of the years listed in 2a, list the years here ▶ 20____, 20____, 20____, 20____			
3a	Did the foundation hold more than a 2% direct or indirect interest in any business enterprise at any time during the year? ☑ Yes ☐ No			
b	If "Yes," did it have excess business holdings in 2014 as a result of **(1)** any purchase by the foundation or disqualified persons after May 26, 1969, **(2)** the lapse of the 5-year period (or longer period approved by the Commissioner under section 4943(c)(7)) to dispose of holdings acquired by gift or bequest, or **(3)** the lapse of the 10-, 15-, or 20-year first phase holding period? *(Use Schedule C, Form 4720, to determine if the foundation had excess business holdings in 2014.)*	3b		No
4a	Did the foundation invest during the year any amount in a manner that would jeopardize its charitable purposes?	4a		No
b	Did the foundation make any investment in a prior year (but after December 31, 1969) that could jeopardize its charitable purpose that had not been removed from jeopardy before the first day of the tax year beginning in 2014?	4b		No

Part VII-B Statements Regarding Activities for Which Form 4720 May Be Required *(continued)*

5a	During the year did the foundation pay or incur any amount to			
	(1) Carry on propaganda, or otherwise attempt to influence legislation (section 4945(e))? ☐ Yes ☑ No			
	(2) Influence the outcome of any specific public election (see section 4955), or to carry on, directly or indirectly, any voter registration drive? ☐ Yes ☑ No			
	(3) Provide a grant to an individual for travel, study, or other similar purposes? ☐ Yes ☑ No			
	(4) Provide a grant to an organization other than a charitable, etc , organization described in section 4945(d)(4)(A)? (see instructions) ☑ Yes ☐ No			
	(5) Provide for any purpose other than religious, charitable, scientific, literary, or educational purposes, or for the prevention of cruelty to children or animals? ☐ Yes ☑ No			
b	If any answer is "Yes" to 5a(1)–(5), did **any** of the transactions fail to qualify under the exceptions described in Regulations section 53 4945 or in a current notice regarding disaster assistance (see instructions)?	5b		No
	Organizations relying on a current notice regarding disaster assistance check here ▶ ☐			
c	If the answer is "Yes" to question 5a(4), does the foundation claim exemption from the tax because it maintained expenditure responsibility for the grant? ☑ Yes ☐ No			
	If "Yes," attach the statement required by Regulations section 53.4945–5(d).			
6a	Did the foundation, during the year, receive any funds, directly or indirectly, to pay premiums on a personal benefit contract? ☐ Yes ☑ No			
b	Did the foundation, during the year, pay premiums, directly or indirectly, on a personal benefit contract?	6b		No
	If "Yes" to 6b, file Form 8870.			
7a	At any time during the tax year, was the foundation a party to a prohibited tax shelter transaction? ☐ Yes ☑ No			
b	If yes, did the foundation receive any proceeds or have any net income attributable to the transaction?	7b		

Part VIII Information About Officers, Directors, Trustees, Foundation Managers, Highly Paid Employees, and Contractors

1 List all officers, directors, trustees, foundation managers and their compensation (see instructions).

(a) Name and address	(b) Title, and average hours per week devoted to position	(c) Compensation (If not paid, enter -0-)	(d) Contributions to employee benefit plans and deferred compensation	(e) Expense account, other allowances
KATHRYN HALL ONE MARITIME PLAZA 5TH FLOOR SAN FRANCISCO,CA 94111	TRUSTEE 5 00	0	0	0
ERIN EISENBERG ONE MARITIME PLAZA 5TH FLOOR SAN FRANCISCO,CA 94111	DIRECTOR RESEARCH (THRU 6/2014) 20 00	71,494	30,290	0
EMILY BIRCHFIELD ONE MARITIME PLAZA 5TH FLOOR SAN FRANCISCO,CA 94111	PROGRAMMERS ASSISTANT 40 00	66,753	25,565	0
MIKHAILA FENDOR ONE MARITIME PLAZA 5TH FLOOR SAN FRANCISCO,CA 94111	PROGRAMMERS ASSISTANT (FROM 6/2014) 40 00	28,469	4,505	0

2 Compensation of five highest-paid employees (other than those included on line 1—see instructions). If none, enter "NONE."

(a) Name and address of each employee paid more than $50,000	(b) Title, and average hours per week devoted to position	(c) Compensation	(d) Contributions to employee benefit plans and deferred compensation	(e) Expense account, other allowances
NONE				

Total number of other employees paid over $50,000 ▶ 0

Part VIII **Information About Officers, Directors, Trustees, Foundation Managers, Highly Paid Employees, and Contractors *(continued)***

3 Five highest-paid independent contractors for professional services (see instructions). If none, enter "NONE".

(a) Name and address of each person paid more than $50,000	(b) Type of service	(c) Compensation
FARELLA BRAUN & MARTEL 235 MONTGOMERY STREET FLOOR 31 SAN FRANCISCO,CA 94104	LEGAL	114,070
PAMELA COVINGTON ONE MARITIME PLAZA 11TH FLOOR SAN FRANCISCO,CA 94111	ACCOUNTING	84,025

Total number of others receiving over $50,000 for professional services. . . . . ▶ 0

Part IX-A **Summary of Direct Charitable Activities**

List the foundation's four largest direct charitable activities during the tax year Include relevant statistical information such as the number of organizations and other beneficiaries served, conferences convened, research papers produced, etc	Expenses
1	
2	
3	
4	

Part IX-B **Summary of Program-Related Investments** (see instructions)

Describe the two largest program-related investments made by the foundation during the tax year on lines 1 and 2	Amount
1	
2	
All other program-related investments See instructions 3	
Total. Add lines 1 through 3 . . . . . ▶	0

Part X **Minimum Investment Return** (All domestic foundations must complete this part. Foreign foundations, see instructions.)

1	Fair market value of assets not used (or held for use) directly in carrying out charitable, etc , purposes			
a	Average monthly fair market value of securities		1a	0
b	Average of monthly cash balances		1b	2,735,751
c	Fair market value of all other assets (see instructions)		1c	107,145,689
d	**Total** (add lines 1a, b, and c)		1d	109,881,440
e	Reduction claimed for blockage or other factors reported on lines 1a and 1c (attach detailed explanation)	1e 0		
2	Acquisition indebtedness applicable to line 1 assets		2	0
3	Subtract line 2 from line 1d		3	109,881,440
4	Cash deemed held for charitable activities Enter 1 1/2% of line 3 (for greater amount, see instructions)		4	1,648,222
5	**Net value of noncharitable-use assets.** Subtract line 4 from line 3 Enter here and on Part V, line 4		5	108,233,218
6	**Minimum investment return.** Enter 5% of line 5		6	5,411,661

Part XI **Distributable Amount** (see instructions) (Section 4942(j)(3) and (j)(5) private operating foundations and certain foreign organizations check here ▶ ☐ and do not complete this part.)

1	Minimum investment return from Part X, line 6		1	5,411,661
2a	Tax on investment income for 2014 from Part VI, line 5	2a 88,645		
b	Income tax for 2014 (This does not include the tax from Part VI)	2b		
c	Add lines 2a and 2b		2c	88,645
3	Distributable amount before adjustments Subtract line 2c from line 1		3	5,323,016
4	Recoveries of amounts treated as qualifying distributions		4	0
5	Add lines 3 and 4		5	5,323,016
6	Deduction from distributable amount (see instructions)		6	0
7	**Distributable amount** as adjusted Subtract line 6 from line 5 Enter here and on Part XIII, line 1		7	5,323,016

Part XII **Qualifying Distributions** (see instructions)

1	Amounts paid (including administrative expenses) to accomplish charitable, etc , purposes			
a	Expenses, contributions, gifts, etc —total from Part I, column (d), line 26		1a	29,058,362
b	Program-related investments—total from Part IX-B		1b	0
2	Amounts paid to acquire assets used (or held for use) directly in carrying out charitable, etc , purposes		2	
3	Amounts set aside for specific charitable projects that satisfy the			
a	Suitability test (prior IRS approval required)		3a	
b	Cash distribution test (attach the required schedule)		3b	
4	**Qualifying distributions.** Add lines 1a through 3b Enter here and on Part V, line 8, and Part XIII, line 4		4	29,058,362
5	Foundations that qualify under section 4940(e) for the reduced rate of tax on net investment income Enter 1% of Part I, line 27b (see instructions)		5	88,645
6	**Adjusted qualifying distributions.** Subtract line 5 from line 4		6	28,969,717

Note: The amount on line 6 will be used in Part V, column (b), in subsequent years when calculating whether the foundation qualifies for the section 4940(e) reduction of tax in those years

Part XIII Undistributed Income (see instructions)

	(a) Corpus	(b) Years prior to 2013	(c) 2013	(d) 2014
1 Distributable amount for 2014 from Part XI, line 7				5,323,016
2 Undistributed income, if any, as of the end of 2014				
a Enter amount for 2013 only			0	
b Total for prior years 20___, 20___, 20___		0		
3 Excess distributions carryover, if any, to 2014				
a From 2009				
b From 2010				
c From 2011				
d From 2012 11,545,761				
e From 2013 30,035,956				
f **Total** of lines 3a through e	41,581,717			
4 Qualifying distributions for 2014 from Part XII, line 4 ▶ $ 29,058,362				
a Applied to 2013, but not more than line 2a			0	
b Applied to undistributed income of prior years (Election required—see instructions)		0		
c Treated as distributions out of corpus (Election required—see instructions)	0			
d Applied to 2014 distributable amount				5,323,016
e Remaining amount distributed out of corpus	23,735,346			
5 Excess distributions carryover applied to 2014	0			0
(If an amount appears in column (d), the same amount must be shown in column (a).)				
6 **Enter the net total of each column as indicated below:**				
a Corpus Add lines 3f, 4c, and 4e Subtract line 5	65,317,063			
b Prior years' undistributed income Subtract line 4b from line 2b		0		
c Enter the amount of prior years' undistributed income for which a notice of deficiency has been issued, or on which the section 4942(a) tax has been previously assessed		0		
d Subtract line 6c from line 6b Taxable amount —see instructions		0		
e Undistributed income for 2013 Subtract line 4a from line 2a Taxable amount—see instructions			0	
f Undistributed income for 2014 Subtract lines 4d and 5 from line 1 This amount must be distributed in 2015				0
7 Amounts treated as distributions out of corpus to satisfy requirements imposed by section 170(b)(1)(F) or 4942(g)(3) (Election may be required - see instructions)	0			
8 Excess distributions carryover from 2009 not applied on line 5 or line 7 (see instructions)	0			
9 **Excess distributions carryover to 2015.** Subtract lines 7 and 8 from line 6a	65,317,063			
10 Analysis of line 9				
a Excess from 2010				
b Excess from 2011				
c Excess from 2012 11,545,761				
d Excess from 2013 30,035,956				
e Excess from 2014 23,735,346				

Part XIV Private Operating Foundations (see instructions and Part VII-A, question 9)

1a If the foundation has received a ruling or determination letter that it is a private operating foundation, and the ruling is effective for 2014, enter the date of the ruling. . . . . ▶

b Check box to indicate whether the organization is a private operating foundation described in section ☐ 4942(j)(3) or ☐ 4942(j)(5)

	Tax year	Prior 3 years			(e) Total
	(a) 2014	(b) 2013	(c) 2012	(d) 2011	
2a Enter the lesser of the adjusted net income from Part I or the minimum investment return from Part X for each year listed					
b 85% of line 2a					
c Qualifying distributions from Part XII, line 4 for each year listed					
d Amounts included in line 2c not used directly for active conduct of exempt activities					
e Qualifying distributions made directly for active conduct of exempt activities Subtract line 2d from line 2c					
3 Complete 3a, b, or c for the alternative test relied upon					
a "Assets" alternative test—enter (1) Value of all assets					
(2) Value of assets qualifying under section 4942(j)(3)(B)(i)					
b "Endowment" alternative test— enter 2/3 of minimum investment return shown in Part X, line 6 for each year listed. . .					
c "Support" alternative test—enter (1) Total support other than gross investment income (interest, dividends, rents, payments on securities loans (section 512(a)(5)), or royalties)					
(2) Support from general public and 5 or more exempt organizations as provided in section 4942(j)(3)(B)(iii). . . .					
(3) Largest amount of support from an exempt organization					
(4) Gross investment income					

Part XV Supplementary Information (Complete this part only if the organization had $5,000 or more in assets at any time during the year—see instructions.)

1 **Information Regarding Foundation Managers:**

a List any managers of the foundation who have contributed more than 2% of the total contributions received by the foundation before the close of any tax year (but only if they have contributed more than $5,000) (See section 507(d)(2))

b List any managers of the foundation who own 10% or more of the stock of a corporation (or an equally large portion of the ownership of a partnership or other entity) of which the foundation has a 10% or greater interest

2 **Information Regarding Contribution, Grant, Gift, Loan, Scholarship, etc., Programs:**

Check here ▶☑ if the foundation only makes contributions to preselected charitable organizations and does not accept unsolicited requests for funds If the foundation makes gifts, grants, etc (see instructions) to individuals or organizations under other conditions, complete items 2a, b, c, and d

a The name, address, and telephone number or email address of the person to whom applications should be addressed

b The form in which applications should be submitted and information and materials they should include

c Any submission deadlines

d Any restrictions or limitations on awards, such as by geographical areas, charitable fields, kinds of institutions, or other factors

Part XV Supplementary Information (continued)

3 Grants and Contributions Paid During the Year or Approved for Future Payment

Recipient Name and address (home or business)	If recipient is an individual, show any relationship to any foundation manager or substantial contributor	Foundation status of recipient	Purpose of grant or contribution	Amount
a *Paid during the year* See Additional Data Table				
Total . . . . . ▶ **3a**				28,530,057
b *Approved for future payment* See Additional Data Table				
Total . . . . . ▶ **3b**				1,525,000

Part XVI-A Analysis of Income-Producing Activities

Enter gross amounts unless otherwise indicated	Unrelated business income		Excluded by section 512, 513, or 514		(e) Related or exempt function income (See instructions)
	(a) Business code	(b) Amount	(c) Exclusion code	(d) Amount	
1 Program service revenue					
a					
b					
c					
d					
e					
f					
g Fees and contracts from government agencies					
2 Membership dues and assessments. . . .					
3 Interest on savings and temporary cash investments			14	44,478	
4 Dividends and interest from securities. . . .			14	15,106	
5 Net rental income or (loss) from real estate					
a Debt-financed property.					
b Not debt-financed property.					
6 Net rental income or (loss) from personal property					
7 Other investment income.			14	42,490	
8 Gain or (loss) from sales of assets other than inventory			14	529	
9 Net income or (loss) from special events					
10 Gross profit or (loss) from sales of inventory. .					
11 Other revenue a					
b					
c					
d					
e					
12 Subtotal Add columns (b), (d), and (e). .		0		102,603	0
13 **Total.** Add line 12, columns (b), (d), and (e).				13	102,603

(See worksheet in line 13 instructions to verify calculations)

Part XVI-B Relationship of Activities to the Accomplishment of Exempt Purposes

Line No. ▼	Explain below how each activity for which income is reported in column (e) of Part XVI-A contributed importantly to the accomplishment of the foundation's exempt purposes (other than by providing funds for such purposes) (See instructions)

Part XVII Information Regarding Transfers To and Transactions and Relationships With Noncharitable Exempt Organizations

			Yes	No
1	Did the organization directly or indirectly engage in any of the following with any other organization described in section 501(c) of the Code (other than section 501(c)(3) organizations) or in section 527, relating to political organizations?			
a	Transfers from the reporting foundation to a noncharitable exempt organization of			
	(1) Cash	1a(1)		No
	(2) Other assets	1a(2)		No
b	Other transactions			
	(1) Sales of assets to a noncharitable exempt organization	1b(1)		No
	(2) Purchases of assets from a noncharitable exempt organization	1b(2)		No
	(3) Rental of facilities, equipment, or other assets	1b(3)		No
	(4) Reimbursement arrangements	1b(4)		No
	(5) Loans or loan guarantees	1b(5)		No
	(6) Performance of services or membership or fundraising solicitations	1b(6)		No
c	Sharing of facilities, equipment, mailing lists, other assets, or paid employees	1c		No

d If the answer to any of the above is "Yes," complete the following schedule Column **(b)** should always show the fair market value of the goods, other assets, or services given by the reporting foundation If the foundation received less than fair market value in any transaction or sharing arrangement, show in column **(d)** the value of the goods, other assets, or services received

(a) Line No	(b) Amount involved	(c) Name of noncharitable exempt organization	(d) Description of transfers, transactions, and sharing arrangements

2a Is the foundation directly or indirectly affiliated with, or related to, one or more tax-exempt organizations described in section 501(c) of the Code (other than section 501(c)(3)) or in section 527? ☐ Yes ☑ No

b If "Yes," complete the following schedule

(a) Name of organization	(b) Type of organization	(c) Description of relationship

Sign Here

Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete Declaration of preparer (other than taxpayer) is based on all information of which preparer has any knowledge

******	2015-09-30	******
Signature of officer or trustee	Date	Title

May the IRS discuss this return with the preparer shown below (see instr)? ☑ Yes ☐ No

Paid Preparer Use Only

Print/Type preparer's name	Preparer's Signature	Date	Check if self-employed ▶ ☐	PTIN
JOAN S MCMAHON				P00966494

Firm's name ▶ DELOITTE TAX LLP — Firm's EIN ▶ 86-1065772

Firm's address ▶ 555 MISSION STREET SAN FRANCISCO, CA 941052230 — Phone no (415)783-4000

Form 990PF Part XV Line 3 - Grants and Contributions Paid During the Year or Approved for Future Payment

Recipient Name and address (home or business)	If recipient is an individual, show any relationship to any foundation manager or substantial contributor	Foundation status of recipient	Purpose of grant or contribution	Amount
a *Paid during the year*				
11 FUND 1200 G STREET NW STE 400 WASHINGTON,DC 20005		PC	SAVINGS PROGRAM FOR SF SCHOOLS	20,000
3500RG 20 JAY STREET STE 1010 BROOKLYN,NY 11201		PC	OPERATING SUPPORT	250,000
ADVANCED ENERGY ECONOMIC INSTITUTE 1000 VERMONT AVE NW 3RD FLOOR WASHINGTON,DC 20005		PC	QUANTIFY ADVANCED ENERGY EMPLOYMENT	1,138,500
ASPEN GLOBAL CHANGE INSTITUTE 104 MIDLAND AVE UNIT 205 BASALT,CO 81621		PC	SUPPORT ZERO CARBON ENERGY POLICY, NATURAL GAS AND ENERGY INNOVATION	500,000
B LAB 8 WALNUT AVE BERWYN,PA 19312		PC	OPERATING SUPPORT	250,000
CENTER FOR AMERICAN PROGRESS 1333 H STREET NW 10TH FLOOR WASHINGTON,DC 20005		PC	CLIMATE PROGRESS REPORT	615,000
CENTER FOR ECOLITERACY 2150 ALLSTON WAY STE 270 BERKELEY,CA 94704		PC	OPERATING SUPPORT	1,275,000
CENTER FOR FOOD SAFETY 660 PENNSYLVANIA AVE SE STE 302 WASHINGTON,DC 20003		PC	OPERATING SUPPORT	100,000
ECOTRUST 721 NW 9TH AVE STE 200 PORTLAND,OR 97209		PC	NATIONAL CAPITAL FUND	550,000
ENVIRONMENTAL ADVOCATES OF NY 353 HAMILTON STREET ALBANY,NY 10010		PC	NY CLIMATE ACTION INITIATIVE	50,000
FOOD AND ENVIRONMENT REPORTING NETWORK 1133 BROADWAY STE 706 NEW YORK,NY 10010		PC	OPERATING SUPPORT	50,000
FOODCORPS 281 PARK AVE SOUTH NEW YORK,NY 10010		PC	HEALTHY FOOD PROGRAM FOR KIDS	125,000
HARVARD UNIVERSITY 1350 MASSACHUSETTS AVE CAMBRIDGE,MA 02138		PC	100 WATTS PROGRAM / TOMKAT INNOVATION FUND AT SEAS	1,400,000
HEYDEY INSTITUTE PO BOX 9145 BERKELEY,CA 94706		PC	A SEA FORAGER'S GUIDE TO NO CAL COAST	7,000
INTERNATIONAL COUNCIL ON CLEAN TRANSPORT ONE POST STREET STE 2700 SAN FRANCISCO,CA 94104		PC	REGIONAL CARBON FUEL SUPPLY ANALYSIS	50,000
Total . . . . . ▶ **3a**				28,530,057

Form 990PF Part XV Line 3 - Grants and Contributions Paid During the Year or Approved for Future Payment

Recipient Name and address (home or business)	If recipient is an individual, show any relationship to any foundation manager or substantial contributor	Foundation status of recipient	Purpose of grant or contribution	Amount
a *Paid during the year*				
INTERNATIONAL LIVING FUTURE INSTITUTE 721 NW 9TH AVE STE 195 PORTLAND,OR 97209		PC	NET ZERO ENERGY, JUST LABEL PROJECT	100,000
NATURAL RESOURCES DEFENSE COUNCIL 40 WEST 20TH STREET NEW YORK,NY 10011		PC	CREATE CARBON POLLUTION STANDARDS	1,000,000
NEW VENTURE FUND 1201 CONNECTICUT AVE NY STE 200 WASHINGTON,DC 20036		PC	ATHABASCA CHIPEWYAN FIRST NATION	500,000
OAKLAND SCHOOLS FOUNDATION PO BOX 27148 OAKLAND,CA 94602		PC	OPERATING SUPPORT	120,000
ONE PACIFICCOAST FOUNDATION 1428 WEBSTER STREET STE 101 OAKLAND,CA 94612		SO I	OPERATING SUPPORT	7,500,000
OREGON FOOD BANK 7900 NE 33RD DRIVE PORTLAND,OR 97211		PC	OPERATING SUPPORT	10,000
PACIFIC INSTITUTE 432 IVY STREET SAN FRANCISCO,CA 94102		PC	REPORT ON RISKS AT INTERSECTION OF OIL & GAS PRODUCTION, FOOD, AGRICULTURE, WATER IN CA	75,000
PRBO CONSERVATION SCIENCE 3820 CYPRESS DRIVE STE 11 PETALUMA,CA 94954		PC	TOMKAT RANCH FIELD SITE	369,206
ROCKY MOUNTAIN INSTITUTE 1820 FOLSOM STREET BOULDER,CO 80302		PC	CREATION OF WHITE-STEYER IMPACT STUDIO	500,000
SAN FRANCISCO FOOD BANK 900 PENNSYLVANIA AVENUE SAN FRANCISCO,CA 94107		PC	OPERATING SUPPORT	10,000
SLOW FOOD USA 1000 DEAN STREET STE 222 BROOKLYN,NY 11238		PC	SLOW MEAT PROGRAM	25,000
SUSTAINABILTY ACCOUNTING STANDARDS BOARD 75 BROADWAY SAN FRANCISCO,CA 94111		PC	OPERATING SUPPORT	1,000,000
SUSTAINABLE MARKETS FOUNDATION 45 W 36TH STREET 6TH FLOOR NEW YORK,NY 10018		PC	MOTHERS OUT FRONT, CIVIL EATS	45,000
TCNG 351 CALIFORNIA STREET SAN FRANCISCO,CA 94104		PC	OPERATING SUPPORT	3,000,000
THE ENERGY FOUNDATION 301 BATTERY STREET FLOOR 5 SAN FRANCISCO,CA 94111		PC	OPERATING SUPPORT	250,000
Total . . . . . ▶ 3a				28,530,057

Form 990PF Part XV Line 3 - Grants and Contributions Paid During the Year or Approved for Future Payment

Recipient Name and address (home or business)	If recipient is an individual, show any relationship to any foundation manager or substantial contributor	Foundation status of recipient	Purpose of grant or contribution	Amount
a *Paid during the year*				
THE LAND INSTITUTE 2440 EAST WATER WELL ROAD SALINA,KS 67401		PC	OPERATING SUPPORT	100,000
TOMKAT RANCH EDUCATIONAL FOUNDATION PO BOX 726 PESCADERO,CA 94060		POF	ADOPT PWC TMM FEASILIBITY STUDY / APPRENTICESHIP PROGRAM	100,000
UNIVERSTIY FOOD BANK 1413 NE 50TH STREET SEATTLE,WA 98105		PC	OEPRATING SUPPORT	10,000
YALE UNIVERSITY PO BOX 2038 NEW HAVEN,CT 06521		PC	OPERATING SUPPORT	7,435,351
Total . . . . . ▶ **3a**				28,530,057

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TY 2014 Accounting Fees Schedule

Name: TOMKAT CHARITABLE TRUST

EIN: 38-6866542

Category	Amount	Net Investment Income	Adjusted Net Income	Disbursements for Charitable Purposes
ACCOUNTING	144,426	72,213		72,213

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Note: To capture the full content of this document, please select landscape mode (11" x 8.5") when printing.

TY 2014 Expenditure Responsibility Statement

Name: TOMKAT CHARITABLE TRUST

EIN: 38-6866542

Grantee's Name	Grantee's Address	Grant Date	Grant Amount	Grant Purpose	Amount Expended By Grantee	Any Diversion By Grantee?	Dates of Reports By Grantee	Date of Verification	Results of Verification
TOMKAT RANCH EDUCATIONAL FOUNDATION	PO BOX 726 PESCADERO, CA 94060	2014-09-08	550,000	ADOPT PWC TMM FEASIBILITY STUDY / APPRENTICESHIP PROGRAM	100,000	NONE	DECEMBER 2014		THE GRANTOR HAS NO REASON TO DOUBT THE ACCURACY OR RELIABILITY OF THE REPORT FROM THE GRANTEE, THEREFORE NO INDEPENDENT VERIFICATION OF THE REPORT WAS MADE

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TY 2014 Investments Corporate Stock Schedule

Name: TOMKAT CHARITABLE TRUST

EIN: 38-6866542

Name of Stock	End of Year Book Value	End of Year Fair Market Value
CORPORATE STOCK	9,175	9,175

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TY 2014 Investments - Other Schedule

Name: TOMKAT CHARITABLE TRUST

EIN: 38-6866542

Category/ Item	Listed at Cost or FMV	Book Value	End of Year Fair Market Value
LIMITED PARTNERSHIPS	AT COST	105,094,179	105,094,179

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TY 2014 Legal Fees Schedule

Name: TOMKAT CHARITABLE TRUST

EIN: 38-6866542

Category	Amount	Net Investment Income	Adjusted Net Income	Disbursements for Charitable Purposes
LEGAL	115,609	57,804		55,874

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TY 2014 Other Expenses Schedule

Name: TOMKAT CHARITABLE TRUST

EIN: 38-6866542

Description	Revenue and Expenses per Books	Net Investment Income	Adjusted Net Income	Disbursements for Charitable Purposes
POSTAGE AND DELIVERY	156	0		156
FROM PARTNERSHIPS	0	2,028,839		0
MEMEBERSHIPS	15,000	0		15,000
OFFICE SUPPLIES	452	0		452
SUBSCRIPTIONS	1,438	0		1,438
TELEPHONE	3,306	0		3,306
INTERNET HOSTING	458	0		458
INSURANCE	21,480	10,740		10,740
BANK SERVICE CHARGES	102	0		102
INVESTMENT MANAGEMENT FEES	12,938	12,938		0
COMPUTER & TECH	2,101	0		2,101
OTHER EXPENSES	623	0		623

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TY 2014 Other Income Schedule

Name: TOMKAT CHARITABLE TRUST

EIN: 38-6866542

Description	Revenue And Expenses Per Books	Net Investment Income	Adjusted Net Income
OTHER INCOME	42,490	42,490	42,490

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TY 2014 Other Increases Schedule

Name: TOMKAT CHARITABLE TRUST

EIN: 38-6866542

Description	Amount
UNREALIZED GAIN	3,877,825

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TY 2014 Other Professional Fees Schedule

Name: TOMKAT CHARITABLE TRUST

EIN: 38-6866542

Category	Amount	Net Investment Income	Adjusted Net Income	Disbursements for Charitable Purposes
OTHER PROFESSIONAL FEES	66,527	0		66,527

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TY 2014 Taxes Schedule

Name: TOMKAT CHARITABLE TRUST

EIN: 38-6866542

Category	Amount	Net Investment Income	Adjusted Net Income	Disbursements for Charitable Purposes
TAX PROVISION	74,994	0		0
FOREIGN TAXES PAID	0	43,728		0
CALIFORNIA TAXES	0	0		10

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TY 2014
TransfersToControlledEntities

Name: TOMKAT CHARITABLE TRUST

EIN: 38-6866542

Name	US / Foreign Address	EIN	Description	Amount
BRIGHTPATH CAPITAL PARTNERS LP	ONE KAISER PLAZA SUITE 650 OAKLAND, CA 94612	27-4260647	CONTRIBUTIONS	7,475,000
EMERGING IMPACT FUND LP	111 SUTTER STREET 10TH FLOOR SAN FRANCISCO, CA 94104	80-0908913	CONTRIBUTIONS	1,144,367
Total				8,619,367

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Schedule B (Form 990, 990-EZ, or 990-PF)
Department of the Treasury
Internal Revenue Service

Schedule of Contributors

▶ Attach to Form 990, 990-EZ, or 990-PF.
▶ Information about Schedule B (Form 990, 990-EZ, or 990-PF) and its instructions is at www.irs.gov/form990.

OMB No 1545-0047

2014

Name of the organization
TOMKAT CHARITABLE TRUST

Employer identification number
38-6866542

Organization type (check one)

Filers of:	Section:
Form 990 or 990-EZ	☐ 501(c)( ) (enter number) organization
	☐ 4947(a)(1) nonexempt charitable trust **not** treated as a private foundation
	☐ 527 political organization
Form 990-PF	☑ 501(c)(3) exempt private foundation
	☐ 4947(a)(1) nonexempt charitable trust treated as a private foundation
	☐ 501(c)(3) taxable private foundation

Check if your organization is covered by the **General Rule** or a **Special Rule.**
Note. Only a section 501(c)(7), (8), or (10) organization can check boxes for both the General Rule and a Special Rule See instructions

General Rule

☑ For an organization filing Form 990, 990-EZ, or 990-PF that received, during the year, contributions totaling $5,000 or more (in money or other property) from any one contributor Complete Parts I and II See instructions for determining a contributor's total contributions

Special Rules

☐ For an organization described in section 501(c)(3) filing Form 990 or 990-EZ that met the 33 1/3% support test of the regulations under sections 509(a)(1) and 170(b)(1)(A)(vi), that checked Schedule A (Form 990 or 990-EZ), Part II, line 13, 16a, or 16b, and that received from any one contributor, during the year, total contributions of the greater of **(1)** $5,000 or **(2)** 2% of the amount on (i) Form 990, Part VIII, line 1h, or (ii) Form 990-EZ, line 1 Complete Parts I and II

☐ For an organization described in section 501(c)(7), (8), or (10) filing Form 990 or 990-EZ that received from any one contributor, during the year, total contributions of more than $1,000 *exclusively* for religious, charitable, scientific, literary, or educational purposes, or for the prevention of cruelty to children or animals Complete Parts I, II, and III

☐ For an organization described in section 501(c)(7), (8), or (10) filing Form 990 or 990-EZ that received from any one contributor, during the year, contributions *exclusively* for religious, charitable, etc , purposes, but no such contributions totaled more than $1,000 If this box is checked, enter here the total contributions that were received during the year for an *exclusively* religious, charitable, etc , purpose Do not complete any of the parts unless the **General Rule** applies to this organization because it received *nonexclusively* religious, charitable, etc , contributions totaling $5,000 or more during the year . . . . . ▶ $ _____

Caution. An organization that is not covered by the General Rule and/or the Special Rules does not file Schedule B (Form 990, 990-EZ, or 990-PF), but it **must** answer "No" on Part IV, line 2, of its Form 990, or check the box on line H of its Form 990-EZ or on its Form 990PF, Part I, line 2, to certify that it does not meet the filing requirements of Schedule B (Form 990, 990-EZ, or 990-PF)

Name of organization TOMKAT CHARITABLE TRUST

Employer identification number 38-6866542

Part I **Contributors** (see instructions) Use duplicate copies of Part I if additional space is needed

(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
1	THOMAS STEYER KATHRYN TAYLOR 111 SUTTER STREET FLOOR 10 SAN FRANCISCO, CA 94105	$ 6,618,138	Person ☐ Payroll ☐ Noncash ☑ (Complete Part II for noncash contributions)
		$	Person ☐ Payroll ☐ Noncash ☐ (Complete Part II for noncash contributions)
		$	Person ☐ Payroll ☐ Noncash ☐ (Complete Part II for noncash contributions)
		$	Person ☐ Payroll ☐ Noncash ☐ (Complete Part II for noncash contributions)
		$	Person ☐ Payroll ☐ Noncash ☐ (Complete Part II for noncash contributions)
		$	Person ☐ Payroll ☐ Noncash ☐ (Complete Part II for noncash contributions)

Schedule B (Form 990, 990-EZ, or 990-PF) (2014) Page 3

Name of organization
TOMKAT CHARITABLE TRUST

Employer identification number
38-6866542

Part II Noncash Property (see instructions) Use duplicate copies of Part II if additional space is needed

(a) No. from Part I	(b) Description of noncash property given	(c) FMV (or estimate) (see instructions)	(d) Date received
1	VARIOUS PARTNERSHIP INTERESTS	$ 6,618,138	2014-07-01

(a) No. from Part I	(b) Description of noncash property given	(c) FMV (or estimate) (see instructions)	(d) Date received
		$	

(a) No. from Part I	(b) Description of noncash property given	(c) FMV (or estimate) (see instructions)	(d) Date received
		$	

(a) No. from Part I	(b) Description of noncash property given	(c) FMV (or estimate) (see instructions)	(d) Date received
		$	

(a) No. from Part I	(b) Description of noncash property given	(c) FMV (or estimate) (see instructions)	(d) Date received
		$	

(a) No. from Part I	(b) Description of noncash property given	(c) FMV (or estimate) (see instructions)	(d) Date received
		$	

Name of organization	**Employer identification number**
TOMKAT CHARITABLE TRUST	38-6866542

Part III *Exclusively* **religious, charitable, etc., contributions to organizations described in section 501(c)(7), (8), or (10) that total more than $1,000 for the year from any one contributor.** Complete columns **(a)** through **(e)** and the following line entry For organizations completing Part III, enter the total of *exclusively* religious, charitable, etc , contributions of **$1,000 or less** for the year (Enter this information once See instructions) ▶ $ ______________

Use duplicate copies of Part III if additional space is needed

(a) No. from Part I	(b) Purpose of gift	(c) Use of gift	(d) Description of how gift is held

(e) Transfer of gift

Transferee's name, address, and ZIP 4	Relationship of transferor to transferee

(a) No. from Part I	(b) Purpose of gift	(c) Use of gift	(d) Description of how gift is held

(e) Transfer of gift

Transferee's name, address, and ZIP 4	Relationship of transferor to transferee

(a) No. from Part I	(b) Purpose of gift	(c) Use of gift	(d) Description of how gift is held

(e) Transfer of gift

Transferee's name, address, and ZIP 4	Relationship of transferor to transferee

(a) No. from Part I	(b) Purpose of gift	(c) Use of gift	(d) Description of how gift is held

(e) Transfer of gift

Transferee's name, address, and ZIP 4	Relationship of transferor to transferee

Exhibit S19

The Washington Post

Politics

Tom Steyer's staff answers questions about his investments and his career change

By Tom Hamburger June 9, 2014

Billionaire Tom Steyer, a retired hedge fund executive turned environmental activist who is positioning himself as the left's answer to the Koch brothers, declined requests for an interview as The Washington Post was preparing an article on his conversion. His staff agreed to respond only to written questions.

Below are some of the questions and answers. The responses were provided to The Post in e-mails from Steyer spokeswoman Heather Wong. The exchanges have been edited slightly for clarity.

Q. How does Tom Steyer square his past decisions to invest in fossil fuels with his current perspective that it is a moral imperative to disinvest from certain energy stocks? Doesn't that tension have the potential to undercut his role as a messenger on environmental causes?

A. As he has stated before, Tom spent 25 years investing in every sector of the economy. As he discussed — including in the recent debate challenge to the Koch Brothers — he had his version of a "Paul on the road to Damascus" moment and came to the decision that he could no longer in good conscience continue [to] stay at a company that by definition was invested in virtually every sector of the economy. Tom stepped down from his business in 2012 and made a commitment to dedicate himself full time to take action on what he feels is the defining issue for the next generation — and has committed to giving away the bulk of his financial blessings to philanthropy and public interest causes. Here is the Koch Debate Challenge as an fyi.

Has Tom Steyer divested all of his fossil-fuel energy holdings? We may have missed it, but we did not see any sales show up in Securities and Exchange Commission disclosures. Can you point them out to us or explain?

As confirmed by Farallon Capital Management's current ADV filing with the SEC, Tom does not have an ownership stake in Farallon Capital Management, which reflects the fact that when Tom left Farallon he sold his management stake and directed that his investment holdings be divested from Farallon's tar-sands and coal-related financial positions. Moreover, since

directing Farallon to divest the coal and tar-sands holdings, Tom expanded the divestment directive to include all of his fossil fuel energy holdings and as of this month he will be divested out of fossil fuels all together.

Why did Tom Steyer decide initially to direct that his portfolio be divested only from tar-sands and coal companies — and not all fossil fuels, as he later decided?

Divesting out of all these fossil fuel positions in an 18-month time period by any objective measure is incredibly fast and by definition means that the priority was to get out of positions regardless of the financial implications. Tom publicly identified coal and tar sands as those are the fossil fuels that are having a specific impact on climate and where the battle for our kids is being fought — he then expanded his divestment at the beginning of this year because he felt it was simply the right thing to do.

Tom Steyer has endorsed energy divestment programs of the sort proposed or enacted at Stanford and other academic institutions. What proportion of Farallon's investments are related to academic institutions? How did the university divestment/disinvestment movement affect him and his business decision-making while at Farallon? Did it have an effect in his thinking about climate change as a top issue? Did it affect his personal investment decisions? How do those divestment standards apply to his own portfolio? Specifically, what is ruled "out" and "in" as "ecologically unsustainable" — oil and coal? Oil, coal, tar sands? Gas? Hydraulic fracturing?

Tom's fossil fuel divestment screen focuses on companies that mine, explore or produce hydrocarbons usable to generate energy, including but not limited to tar sands, oil, coal, natural gas and companies that operate pipelines that carry tar-sands crude. Per the above — and as Tom has discussed over the last several years — as the science made clear that climate change constitutes an existential crisis for our world, and especially for the world our kids will live in, he came to the conclusion that in good conscience he needed to step aside from being at a fund and commit himself, and his resources, to working to find a solution. Those solutions include various actions, ranging from political activity to supporting AEE's [Advanced Energy Economy's] efforts to organize and promote clean-energy jobs to his foundation's Risky Business project that focuses on the economic impact of climate, to supporting divestment to One Pacific Coast Bank, the community development bank that makes capital accessible to historically underserved communities, to the Too Small To Fail initiative (focusing on supporting children, co-chaired by Secretary [Hillary Rodham] Clinton), and extensive charitable giving through TomKat Charitable Trust. Tom has talked about the moral standing universities and colleges can have when they stand up on issues. You may have it, but here is Tom's letter to Middlebury College.

Tom Steyer has said his investments need to be wound down. We note that in some hedge funds, it can take a decade or more to wind down a top executive's holdings and assure a payout commensurate with the executive's role in the firm. What is the status of Tom's wind-down? Does it apply to his retirement and other payout agreements with Farallon? Does he receive management fees or incentive compensation such as carried interest?

Tom sold his management stake and has retained an investment relationship with Farallon comprised of his fossil-fuel-free investment holdings. After resigning on 12/31/12, Tom was no longer entitled to and does not receive any management fees or incentive compensation. [Incentive compensation is carried interest.]

We note that Farallon has recently held a stake in a number of oil, gas and pipeline companies, including a large investment in Kinder Morgan, an oil and gas pipeline outfit that plans to expand its own Trans Mountain pipeline to transport oil from Alberta to refineries and shipping terminals in the U.S. and Canada. Did Tom Steyer personally approve or review that investment while at Farallon? Does Steyer now favor or oppose the Trans Mountain pipeline? In mid-2013, Steyer said his divestment of Kinder Morgan investments would be complete by the end of the year. Did that happen? Can you show us evidence of the sale?

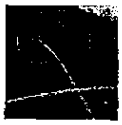
As Tom said in his letter to Senator [David] Vitter [of Louisiana] he would donate 100% of his personal profits from Farallon Capital's investments in Kinder Morgan. As can be found in Farallon's SEC Form 13-F filings, Farallon has completely divested itself of its Kinder Morgan holdings and Tom's personal profits — valued at around $1.7 million — are being placed in a fund to assist the victims of wildfires.

Carol D. Leonnig and Rosalind S. Helderman contributed to this report.

3 Comments

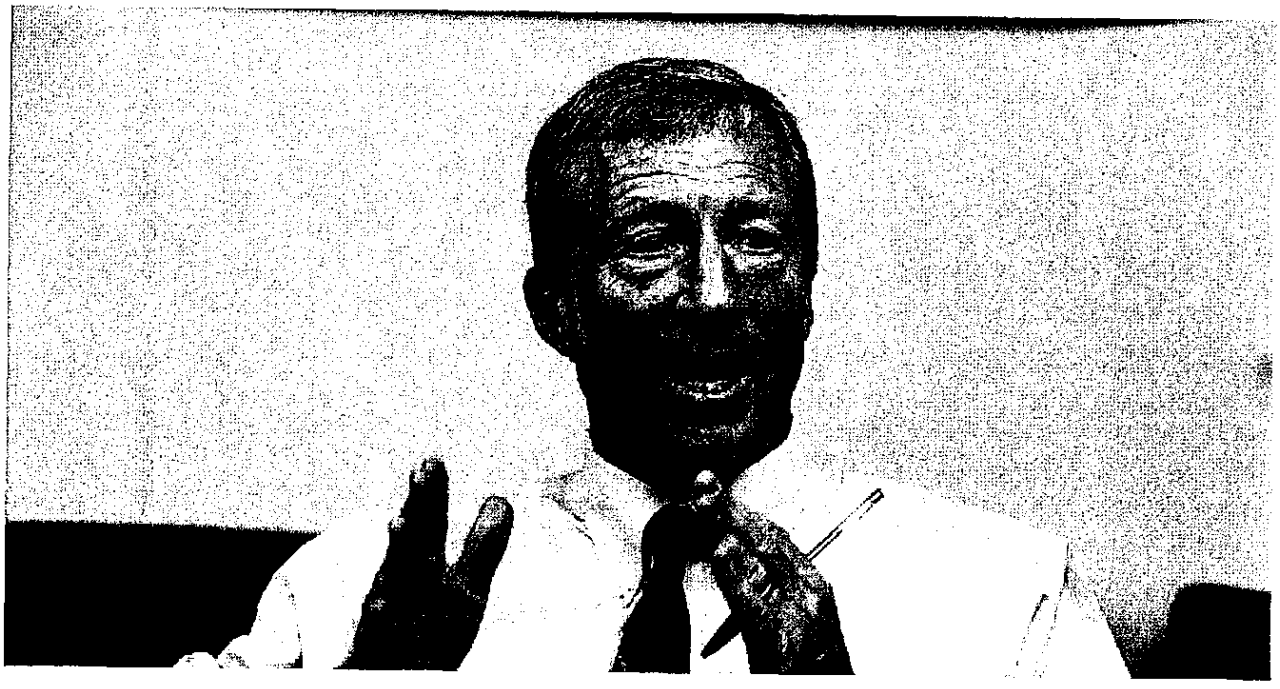
Tom Hamburger covers the intersection of money and politics for The Washington Post. Follow @thamburger

Exhibit S20



Tom Steyer's green ambitions

By PATT MORRISON
JAN 20, 2015 | 7:26 PM



LOS ANGELES, CA - JULY 29, 2014. President of NextGen Climate, California politics. (Los Angeles Times)

Gov. Jerry Brown's inauguration speech this month was as green as the decor in the ornate Assembly chamber where he gave it. And it left Tom Steyer tickled pink. The philanthropist put millions into the 2014 elections, primarily through his NextGen Climate Action super PAC. His candidates mostly lost, but he has no regrets. Steyer has worked on political campaigns since the 1970s, including Democrat Walter Mondale's 1984 presidential bid, but his formidable political voice comes from the billions he made as a hedge fund manager. He's long invested in greener California politics, and making climate disaster a politically crucial national issue is his

Cause One — like the TV spot NextGen ran during coverage of Tuesday's State of the Union speech.

Your name has come up as a possible candidate for Barbara Boxer's Senate seat. Are you going to run?

You spent nearly $75 million in the 2014 midterms. What did you get for that?

Our mission is to prevent climate disaster and preserve American prosperity. In the states we were in, we made climate a first-tier issue maybe for the first time ever. Candidates on both sides had to address the issue. It was in all the debates and all the papers. We believe turnout in places where we were on the ground was better than in 2010.

Did you create single-issue climate voters?

We probably have 350,000 people across different states who said they would be climate voters. In addition we worked hard to explain why climate is a first-tier issue, both by going door to door and doing field work — presenting arguments in south Florida about why rising oceans affect people there. We tried to make it a local, human issue.

Is an election campaign the best way to do that?

We believe the way social change occurs in the United States, over the last 200 years, is the democratic process. We want to be part of that process.

outspending the other guy the sine qua no politics if you're also a big part of it?

We agree that Citizens United is a very bad decision. We don't believe outspending your opponent is the way to go since we don't believe we will ever be outspending our opponents! If you see what the other side, the fossil fuel industry, spent to maintain the dirty energy status quo in Congress in the past two years, it's a multiple of what we spent. We don't believe in hiding our heads in the sand. We have to figure out how to be effective within the process, even though there are parts of it we disagree with

Still, some critics call you a hypocrite about money in politics.

What we are doing is very different from the so-called dark money groups. We are committed to using our resources openly and transparently. All of our electoral efforts are conducted through our super PAC, which discloses and reports its donors and expenditures, unlike some of the groups on the other side.

You're looked upon as the counter to the Koch brothers. Is that what you are?

We are very different from the Koch brothers. We're doing something we think is right and important. They may believe what they're doing is right but it definitely redounds to their benefit. Second, we're trying really hard to be transparent — they're not transparent. We feel we're going to win because we have the facts and right on our side. You don't have to outspend somebody if that's true.

You want climate to be something every candidate has to address in the 2016 race. How do you do that?

It's important to show that it has resonance with voters they have to get. The people who care most about this statistically are the so-called rising American electorate and in particular young millennials. They have very low turnout patterns but care a lot about this issue. Other people in the so-called rising American electorate — people of color, single women — care

What did you learn in 2014 about making t

The most powerful thing in politics is voter-to-voter contact. People take in ideas and formulate opinions by contact with other people they perceive to be trustworthy — other voters, people from their communities.

Where does the public opinion battle stand?

Somewhere between two-thirds and 70% of the public agrees with us. I think the days of the climate deniers are over. To deny basic science is to risk the trust of the general public. People who used to be deniers are now what I call agnostics; they're saying, "I'm not a scientist, I'm not qualified to answer that question." However, that will be a very short-term answer because it's kind of dopey.

For example, you're not a doctor, but you have an opinion about the Affordable Care Act. You're not a PhD in political science but you have an opinion about foreign affairs. The public is with us. The issue is not changing their minds, it's making it important to them.

So politicians' minds have to be changed by the voters?

Yes. People can force them to move by voting, which is what I hope happens, or [climate change] events will change voting patterns and the behavior of elected officials. I'm hoping we don't delay long enough that events happen that put us in a tough place.

The Keystone XL pipeline is on Congress' agenda. Won't someone extract the oil it would carry, regardless?

No. What's really going on is a gigantic mining operation. They are trying to take that operation from the current 2 million barrels a day to 9 million a day. Keystone XL is 800,000 a day. They're trying to build five pipelines. There was never a point where they could go from 2 million to 9 million barrels without Keystone XL. If they could have, why didn't they just do it, and stop fighting in the United States?

That oil has to stay in the ground.

Is there a prospect of some breakthrough in energy technology that will render fossil fuel obsolete, as fossil fuel itself did to, say, whale oil?

I sure as heck hope! I harken back to the AIDS crisis; we were looking for a silver bullet. We came up with a whole host of [treatments] in the "cocktail." It may be that we never get the [climate] silver bullet, but we get the cocktail — innumerable advances in innumerable places that get us to a very prosperous society, and we're not creating this catastrophe for ourselves.

Whatever the U.S. may do, won't developing countries say, "Fossil fuel is how you got rich; why can't we?"

We're going to have to walk the walk. We're not going to do this on our own, but I don't think they can do it without us. We can bring technology, finance, scientific credibility to all of this. [It's] the greatest opportunity of our lifetime as a country, to lead the world in doing the most important right thing.

This interview was conducted by phone and email. It has been edited and condensed.

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Twitter: @pattmlatimes

Exhibit S21

Billionaire Steyer Says There's 'No Limit' on His Spending Against Trump

By John McCormick and Bill Allison
January 18, 2017, 5:00 AM EST

Environmental activist spent $87 million on 2016 election

Steyer opposes Trump's picks for EPA and State Department

Trump Transition: Inauguration and First 100 Days

Tom Steyer, the billionaire environmental activist who spent at least $87 million on the 2016 election, said he can't begin to estimate how much of his fortune he'll put toward fighting Donald Trump's presidency.

"If you ask me can I put a limit on how much I value the health, the safety, the employment and the civil liberties of Americans, there's no limit to what I think that's worth," Steyer, a Democrat, said in an interview Tuesday.

Tom Steyer Photographer: David Paul Morris/Bloomberg

Steyer, the biggest individual political donor in last year's election, channels most of his money through a network of groups known as NextGen Climate. He's already combating the president-

elect's cabinet picks and trying to pressure the incoming administration not to roll back environmental regulations.

Trump, who has called climate change a hoax invented by the Chinese to weaken the U.S. economy, has raised concerns among conservationists that he'd roll back environmental protections. He walked back some of his campaign rhetoric, including a promise to abandon the international climate accord reached in 2015 in Paris, in a November interview with The New York Times.

"We don't know how much of their campaign rhetoric they're going to try to put into action," said Steyer. "But this is the most broad-based and dangerous attack on American values certainly that I have ever experienced in my lifetime and much more than I have ever imagined would happen while I'm alive."

Concerns deepened when Trump announced his picks of Rex Tillerson, the former chief executive of Exxon Mobil Corp., to be his secretary of state, and Scott Pruitt, a longtime opponent of environmental regulations, to head the Environmental Protection Agency. Pruitt, who has led lawsuits against the agency he's been tapped to head, is an "extreme and dangerous choice," Steyer said.

Steyer helped create the NextGen Climate network in 2012 after leaving Farallon Capital Management, the hedge fund he co-founded, to devote himself to conservation. In 2016, the group focused on mobilizing young voters around climate change policies. Steyer didn't rule out using the courts as a way to challenge the Trump administration on environmental matters. "The judicial branch did not disappear," he said.

Still, despite Trump's policies, the shift toward cleaner energy isn't likely to be reversed, because the industry is already firmly established, Steyer said.

Use of renewable energy should outpace fossil fuels, he said, "unless they try to change the rules to somehow advantage dirty energy over clean energy. The industrial logic is in place and I think it's unstoppable over time."

In 2016, NextGen spent $7.1 million supporting Hillary Clinton and opposing Trump, Federal Election Commission records show. One of the super-PAC's biggest expenditures was $13.2 million that it transferred to its affiliate, NextGen California Action Committee, which spent nearly all of that money on ads attacking Trump.

One of the ads was in Spanish and highlighting Trump's controversial statements on immigrants. It ended with Steyer himself urging Latinos to vote, fueling speculation that he is seeking to boost his political profile ahead of a possible 2018 bid for California governor.

For now, Steyer said, he hasn't made a decision to run, and his focus remains on NextGen's environmental protection goals.

"We think this administration is threatening every single part of that mission statement," he said.

Exhibit S22

ENERGY IN DEPTH
CLIMATE & ENVIRONMENT

Search Keywords

AFTER EVEN DEEPER COLLUSION WITH SCHNEIDERMAN REVEALED, #EXXONKNEW CAMPAIGN TRIES TO CHANGE THE SUBJECT

MARCH 14, 2017 | KATIE BROWN

Yesterday, *Bloomberg* broke a story that New York Attorney General Eric Schneiderman is asking for more information about a second email address previously used by former ExxonMobil president and CEO Rex Tillerson, as part of his investigation of the company. The email address – which is in the company's email system – had been issued for expedited communications with leadership in the company on a broad range of topics.

That's news? The leak looks more like a desperate move by an AG with little to show after his nearly two year investigation. Recall that Schneiderman has been given millions of pages of documents, yet all he could scrounge up for his bombshell revelation is an alternate company-provided email address. In the meantime, Schneiderman has been repeatedly embarrassed as FOIA'd documents continue to reveal how close his coordination has been with the Rockefellers who have funded the entire #ExxonKnew campaign, and the activists who are pushing it forward.

The real story is that Schneiderman is refusing to turn over emails between his office and major donors of the ExxonKnew campaign – including the Rockefeller Brothers Fund, Rockefeller Family Fund, and billionaire activist Tom Steyer – citing a Freedom of Information Law (FOIL) "law enforcement" exemption. In other words, Schneiderman is claiming that the emails between his office and his wealthy donors are part of his investigation. Of course, the Rockefellers and Tom Steyer (more specifically Steyer's scheduler and assistant) are clearly not law enforcement officers, so this looks like yet another delay tactic used by Schneiderman to improperly keep these records secret.

Former New York Attorney General Dennis Vacco published an op-ed today decrying Schneiderman's tactics, writing:

> "Disclosure of emails involving outside special interests and the AG's staff shouldn't be hidden behind some law enforcement privilege or other FOIL exemption. Releasing them would reveal the real role of the special interests in the investigation and would shed light on whether the investigation is proper or an abuse of power."

While the emails are now before a judge who will rule on this move, we do have the log of the correspondence, thanks to a FOIL request made by the Energy and Environment Legal Institute (E&E Legal). These logs show communications between Schneiderman's aides and the Rockefellers, as well as Steyer's office, that date back to early 2015, long before the original #ExxonKnew hit pieces were published.

Here's a brief timeline showing what we know from the logs and how it fits into the broader picture:

> Fall 2014 – Rockefeller-funded Columbia School of Journalism begins its investigative series on Exxon.

January 2015 – David Sassoon **directs** ICN to investigate oil companies' climate research.

Feb. 8, 2015 – **Larry Shapiro** of the Rockefeller Family Fund (RFF) emails a news article to Lem Srolovic and Steven Glassman of Schneiderman's office and Lisa Hamilton with the Center for International Environmental Law (CIEL) – a group that has issued a number of **#ExxonKnew reports.**

Feb. 11, 17, 19, 23, 2015 – There are **several emails** in the log between Lee Wasserman and Lem Srolovic about a meeting regarding "activities of specific companies regarding climate change." [All description are provided by Schneiderman's office to the Court, and are not necessarily the emails' actual subject fields]

Feb. 21-22, 2015 – **Lee Wasserman** shares news articles about "activities of specific companies regarding climate change" with Lem Srolovic and Steven Glassman.

Oct. 23, 2015 – Final ExxonKnew series published in **LA Times**.

Nov. 4, 2015 – Schneiderman **announces** subpoena.

Nov. 6, 2015 – Lee Wasserman's daughter **praises** Schneiderman's subpoena, saying she is "so proud of [Lee Wasserman] for **helping make this happen** #ExxonKnew." (emphasis added)

Nov. 6, 2015 – Columbia and LA Times **quietly update** their webpages to disclose the Rockefeller funding after failing to be transparent.

Nov. 9, 2015 – The log shows **emails** between Schneiderman's office and Tom Steyer's scheduler (Erin Suhr) with subject "Following up on conversation re: company specific climate change information."

Nov. 20, 2015 – Exxon sends **letter** of complaint to Columbia University alleging that the journalism adviser and her team of graduate students cherry-picked documents, ignored statements, and misrepresented the intent of their investigation.

Nov. 21, 2015 – **Michael Gerrard** of the Sabin Center for Climate Change Law at Columbia University emails Lem Srolovic regarding a list of documents related to Exxon case.

Dec. 15, 2015 – **Larry Shapiro** of Rockefeller Family Fund emails Lem Srolovic, Lee Wasserman (RFF), and Lisa Hamilton (CIEL) regarding "comments on news articles" that was withheld from a FOIL request because it would interfere with "law enforcement."

> December 31, 2015 – Lee Wasserman emails a news article to Lem Srolovic.
>
> March 10, 2016 – Schneiderman tries to arrange a call with Tom Steyer "regarding support for his race for governor…regarding Exxon case."
>
> March 29, 2016 – Schneiderman hosts the infamous press conference with Al Gore announcing Massachusetts' and the U.S. Virgin Islands' investigations of Exxon.

In other words, even though Schneiderman's office has refused to comply with open records laws, the logs they provided certainly show how deeply involved the Rockefellers have been in Schneiderman's investigation. Importantly, these logs only reflect correspondence that mentions #ExxonKnew campaigners John Passacantando and Kert Davies, so they do not reflect *all* the emails from or to Wasserman or the Rockefellers. Additionally, the logs only represent correspondence from the short periods of time covered by the FOIL requests, meaning there could be many more emails between the NY AG's office and wealthy donors.

Now, remember when the Rockefellers went on national TV late last year to own up to the fact that they've funded the entire #ExxonKnew campaign – and then Lee Wasserman of the Rockefeller Family Fund wrote a couple of op-eds admitting that they met with Schneiderman to lobby him to investigate Exxon?

Could that be because they knew all this was going to come out in the open and they could no longer hide their involvement?

That certainly explains why they are so desperate to change the subject.

Exhibit S23

SECRET MEMO REVEALS TOM STEYER MAY BE BEHIND #EXXONKNEW CLIMATE LAWSUITS

NOVEMBER 14, 2017 | SPENCER WALRATH

The *Daily Mail* has published a bombshell secret memo sent by leading #ExxonKnew activist-lawyer Matt Pawa to billionaire climate activist Tom Steyer, outlining a strategy to bring state-level class action lawsuits against energy companies and charging them with causing global warming. Pawa's strategy is nearly identical to the lawsuits recently brought by the cities of San Francisco and Oakland against five energy companies, including ExxonMobil and Shell. Pawa is representing the plaintiffs in that case.

Coupled with a large donation to San Francisco's mayor by Steyer, the memo suggests Pawa may have used Steyer's money and influence to get San Francisco and Oakland to hire him to sue energy companies on their behalf.

The Pawa memo has its roots in the infamous 2012 La Jolla, Calif., conference, where anti-oil and gas activists devised a **playbook** for taking on the energy industry. The participants, including Matt Pawa, discussed various legal strategies that could "unearth" industry documents relating to climate change.

Pawa has operated in the shadows of the #ExxonKnew campaign since its inception at the La Jolla conference. After sending the memo to Steyer in 2015, Pawa met with other activists at a secret **closed-door meeting** at the Rockefeller Family Fund in January 2016. According to a **leaked agenda** from that meeting, Pawa and the others discussed ways to "delegitimize" the energy industry. After considering various strategies, the participants asked, "Which of these has the best prospects for successful action? For getting discovery? For creating scandal?"

In his memo to Steyer, **Pawa writes** that "simply proceeding to the discovery phase of a global warming case would be significant."

Pawa then **secretly briefed** several state attorneys general ahead of their March 29 press conference with Al Gore where they announced that Massachusetts AG Maura Healey and U.S. Virgin Islands AG Claude Walker would join New York AG Eric Schneiderman in launching investigations into ExxonMobil's climate research. When the **Wall Street Journal** reached out to Pawa to ask about his role in briefing the attorneys general, Pawa sent an **email to Lem Srolovic with the New York Attorney General's office** asking what he should do. Srolovic responded, "My ask is if you speak to the reporter to not confirm that you attended or otherwise discuss the event."

Though Tom Steyer has **repeatedly denied** any involvement or connection with the #ExxonKnew campaign, he and his activist organization NextGen Climate have actively participated in the crusade for years. A NextGen chapter in New Hampshire held a **rally** in April 2016 that tried to push that state's attorney general to join Schneiderman's ExxonMobil investigation. Though the webpage promoting the rally has disappeared, NextGen Climate NH **tweeted a photo** from the rally and NextGen's national Twitter account **tweeted**, "We agree that New Hampshire should join the Exxon investigation."

NextGen Climate NH
@NextGen_NH

Strong support for NH joining the #ExxonKnew investigation.

Thanks to everyone for coming out! #nhpolitics

5:08 PM - Apr 21, 2016

2 36 29

NextGen also targeted then-Senator **Kelly Ayotte** and Senator **Rob Portman** with petitions urging them to investigate ExxonMobil, though those pages have also been removed. NextGen even signed an ExxonKnew.org **letter** that says, "The undersigned organizations firmly support U.S. state attorneys general for investigating corporations like Exxon for their possible past and ongoing climate fraud that is destroying our planet." **Steyer personally signed** a 350.org letter petitioning the Department of Justice to open an investigation into ExxonMobil.

Despite all of the evidence to the contrary, Steyer has misled the press about his involvement, telling ***Politico***, "We are not part of this effort."

Email logs obtained via public information requests suggest New York AG Eric Schneiderman repeatedly attempted to use his ExxonMobil investigation as a hook to solicit donations from Steyer. The **logs** show that Schneiderman's office emailed Steyer's scheduler (Erin Suhr) five days after he subpoenaed ExxonMobil's climate change research to follow up "on conversation re: company specific climate change information." Then, a couple of weeks before his press conference with Al Gore, Schneiderman tried to **arrange a call** with Steyer "regarding support for his race for governor…regarding Exxon case."

The *Daily Mail* also reveals that Steyer gave **$30,000** to San Francisco Mayor Ed Lee after NextGen received Pawa's memo but before San Francisco hired Pawa to lead its lawsuit against

the energy companies. Members of Lee's administration were charged last year with accepting bribes and rumors continue to circulate about "'pay to play' politics in Lee's administration."

The 2015 memo from Pawa "tracks closely" with the lawsuit San Francisco ultimately filed, according to the *Daily Mail*. The article touches on a key point about the #ExxonKnew campaign:

> "But the memo argues that climate change activists would not have to actually win the lawsuit in order to damage the oil industry.
>
> "It claimed that 'simply proceeding to the discovery phase of a global warming case' – during which the oil corporations would be required to turn over internal documents – 'would be significant' for activists…
>
> "'Just obtaining such documents gave the Tobacco litigation an unstoppable momentum, here to[o] obtaining industry documents would be a remarkable achievement that would advance the case and the cause.'"

The 2012 La Jolla strategy conference was subtitled "Lessons from Tobacco Control."

This latest memo underscores that this campaign against energy companies has nothing to do with seeking damages or mitigating the effects of climate change. These lawsuits are purely about advancing "the cause," "creating scandal," and "delegitimiz[ing]" the industry.

Exhibit S24

NEWS EXCLUSIVE

Schneiderman tried to contact eco-tycoon amid Exxon probe

By Isabel Vincent

September 11, 2016 | 6:18am

Tom Steyer and New York State Attorney General Eric Schneiderma

Getty Images (2)

When state Attorney General Eric Schneiderman took on ExxonMobil over climate change last year, it seemed like an odd global crusade for a local politician.

Perhaps he was drilling for campaign cash, critics now contend after The Post obtained an e-mail that appears to show the state's top cop was seeking a tree-hugging billionaire's help to finance a run for governor in 2018.

In March 2016, four months after announcing the Exxon probe, the Democratic AG tried to arrange a phone meeting with hedge-fund mogul Tom Steyer, an environmental activist and Exxon enemy.

"Eric Schneiderman would like to have a call with Tom regarding support for his race for governor . . . regarding Exxon case," reads the March 10 e-mail.

The note was sent by Steyer lawyer Ted White to Erin Suhr, Steyer's director of strategic planning at Fahr LLC, which oversees Steyer's political and philanthropic efforts. White, a Colorado lawyer, is Fahr's managing partner.

“Anyone have any flags on this call before I add to Tom’s call sheet for Monday?” Suhr replied the next day in an e-mail.

A spokeswoman for Steyer and the two Fahr execs confirmed the e-mail exchange but said the phone meeting never happened.

She also said White has not donated to the AG’s campaign.

Steyer is a heavyweight Dem donor who has poured cash into Hillary Clinton’s coffers, organized a fund-raiser for President Obama and helped bankroll Clinton acolyte Terry McAuliffe’s successful 2013 gubernatorial bid in Virginia. Steyer’s NextGen Climate Action PAC spent nearly $70 million on elections in 2014.

Steyer had accused Exxon of misleading investors on climate change for nearly 30 years. In January, as Schneiderman rallied attorneys general in other states to the cause, Steyer urged California’s attorney general to join the investigation.

But with AGs deserting the case, many wonder why Schneiderman took on an issue so far afield.

“It all smacks of politics,” said former New York AG Dennis Vacco. “What’s unsettling to me about this probe is that many of Attorney General Schneiderman’s supporters are investors in alternative-energy companies and enemies of Exxon.”

The March e-mail alludes to a run for governor, but Schneiderman had denied any such ambition months earlier, telling Politico on Nov. 12, “I am not running for governor in 2018.”

His spokesman, Eric Soufer, called the e-mails “nonsense” and said neither the AG nor his staff communicated with White or Steyer about a run for governor.

“If anything, Mr. White may be referring to Mr. Steyer’s reported interest in a run for governor of California,” Soufer said.

But a source close to White told The Post, “That’s not our interpretation of the e-mail.”

FILED UNDER **ATTORNEY GENERAL**, **CLIMATE CHANGE**, **ERIC SCHNEIDERMAN**, **EXXON**, **INVESTIGATIONS**, **TOM STEYER**

Exhibit S25

From: Matt Pawa <mp@pawalaw.com>
Sent: Wednesday, January 20, 2016 8:42 AM
To: Kline, Scot
Subject: [Redacted]

Scot - FYI. http://www.latimes.com/business/la-fi-exxon-global-warming-20160120-story.html?cid=dlvr.it&dlvrit=52116

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(617) 641-9551 facsimile
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Exhibit S26

From: Kline, Scot
Sent: Wednesday, January 20, 2016 9:03 AM
To: Matt Pawa
Subject: [Redacted]

[Redacted]

-----Original Message-----
From: Matt Pawa [mailto:mp@pawalaw.com]
Sent: Wednesday, January 20, 2016 8:42 AM
To: Kline, Scot <scot.kline@vermont.gov>
Subject: [Redacted]

Scot - FYI. http://www.latimes.com/business/la-fi-exxon-global-warming-20160120-story.html?cid=dlvr.it&dlvrit=52116

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Exhibit S27

From: Matt Pawa <mp@pawalaw.com>
Sent: Monday, February 15, 2016 10:09 AM
To: Kline, Scot
Subject: [Redacted]

Scot - from today's LA Times: http://www.latimes.com/opinion/op-ed/la-oe-rockefeller-goodwin-oil-stock-global-warming-20160215-story.html

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Exhibit S28

Fossil fuel divestment Keep it in the ground

Rockefeller family charity to withdraw all investments in fossil fuel companies

Started by John D Rockefeller – who made his fortune from oil – the fund singled out ExxonMobil, calling the world's largest oil company 'morally reprehensible'

John D Rockefeller, who was the richest person in US history when he died in 1937, made his fortune from Standard Oil a precursor of ExxonMobil. Photograph: Jessica Rinaldi/Reuters

Rupert Neate in New York

Wed 23 Mar '16 17.39 EDT

A charitable fund of the Rockefeller family – who are sitting on a multibillion-dollar oil fortune – has said it will withdraw all its investments from fossil fuel companies.

The Rockefeller Family Fund, a charity set up in 1967 by descendants of John D Rockefeller, said on Wednesday that it would divest from all fossil fuel holdings "as quickly as possible".

The fund, which was founded by Martha, John, Laurance, Nelson and David Rockefeller, singled out ExxonMobil for particular attention describing the world's largest oil company as "morally reprehensible".

John D Rockefeller, who was the richest person in US history when he died in 1937, made his fortune from Standard Oil a precursor of ExxonMobil.

"There is no sane rationale for companies to continue to explore for new sources of hydrocarbons," the RFF, which has relatively small total holdings of $130m (£92m), said in a statement. "We must keep most of the already discovered reserves in the ground if there is any hope for human and natural ecosystems to survive and thrive in the decades ahead.

"We would be remiss if we failed to focus on what we believe to be the morally reprehensible conduct on the part of ExxonMobil. Evidence appears to suggest that the company worked since the 1980s to confuse the public about climate change's march, while simultaneously spending millions to fortify its own infrastructure against climate change's destructive consequences and track new exploration opportunities as the Arctic's ice receded."

Exxon knew of climate change in 1981, email says – but it funded deniers for 27 more years

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An Exxon spokesman told CNBC: "It's not surprising that they're divesting from the company since they're already funding a conspiracy against us." The RFF denied that it was conspiring against Exxon, and a spokesman said the claim was "a complete mischaracterization of our program work".

The RFF's accusation of morally reprehensible conduct is in reference to New York state attorney general Eric Schneiderman's investigation, launched in November, into whether Exxon lied to the public and shareholders about the risks of climate change.

The investigation, which has also been taken up by California'a attorney general, follows reports that internal company documents from the 1980s and 90s show Exxon's in-house scientists were warning company executives about the dangers of climate change, while Exxon was publicly claiming that climate science was not proven.

At the time, an Exxon spokesman said: "We unequivocally reject the allegations that ExxonMobil has suppressed climate change research."

The RFF acknowledged that the family has made a lot of money from oil, "but history moves on, as it must". "Needless to say, the Rockefeller family has had a long and profitable history investing in the oil industry, including ExxonMobil," it said. "These are not decisions, therefore, that have been taken lightly or without much consideration of their import."

RFF is not the first Rockefeller family organisation to vow to divest from fossil fuels. Last year the Rockefeller Brothers Fund (RBF) said it was withdrawing all of the $45m it had invested in fossil fuels.

However, the much wealthier Rockefeller Foundation, whose endowment tops $4bn, is understood to be opposed to divestment for now.

Topics

- Fossil fuel divestment
- Keep it in the ground

- ExxonMobil
- Oil and gas companies
- Energy industry

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Exhibit S29

Part A –Request Seeking Records Related to October and November 2015 Meetings

Bates Range	Document Type	Document Date	Author(s)	Recipient(s)	Subject	Exemption or Privilege
FOIL160286_000001	Email	11/9/2015	Christina Harvey	Erin Suhr, Alvin Bragg, Lemuel Srolovic and Karla Sanchez	Following up on conversation re: company specific climate change information	Law Enforcement
FOIL160286_000002	Email	11/9/2015	Christina Harvey	Erin Suhr, Alvin Bragg, Lemuel Srolovic and Karla Sanchez	Following up on conversation re: company specific climate change information	Law Enforcement
FOIL160286_000003	Email	11/10/2015	Christina Harvey	Alvin Bragg, Lemuel Srolovic and Karla Sanchez	Following up on conversation re: company specific climate change information	Intra/Inter-Agency and Law Enforcement
FOIL160286_000004	Email	11/10/2015	Lemuel Srolovic	Christina Harvey, Alvin Bragg and Karla Sanchez	Following up on conversation re: company specific climate change information	Intra/Inter-Agency and Law Enforcement
FOIL160286_000005	Email	11/10/2015	Karla Sanchez	Lemuel Srolovic, Christina Harvey and Karla Sanchez	Following up on conversation re: company specific climate change information	Intra/Inter-Agency and Law Enforcement
FOIL160286_000006-000007	Email	11/10/2015	Alvin Bragg	Karla Sanchez, Lemuel Srolovic, Christina Harvey	Following up on conversation re: company specific climate change information	Intra/Inter-Agency and Law Enforcement

Bates Range	Document Type	Document Date	Author(s)	Recipient(s)	Subject	Exemption or Privilege
FOIL160286_000008	Email	11/9/2015	Kristen Sageser	Christina Harvey and Siobhan Kennedy	Following up on conversation re: company specific climate change information	Intra/Inter-Agency and Law Enforcement
FOIL160286_000009	Email	11/9/2015	Christina Harvey	Kristen Sageser and Siobhan Kennedy	Following up on conversation re: company specific climate change information	Intra/Inter-Agency and Law Enforcement

Total	Intra/Inter-Agency	Law Enforcement
8	6	8

Part B – Request Seeking Records Related to February 2015 Meeting

Bates Range	Document Type	Document Date	Author(s)	Recipient(s)	Subject	Exemption or Privilege
FOIL160286_000010	Email	2/23/2015	Lemuel Srolovic	Joan Smith	Meeting re: activities of specific companies regarding climate change	Intra/Inter-Agency and Law Enforcement
FOIL160286_000011-000012	Email	2/13/2015	Lemuel Srolovic	Michael J. Myers	Meeting re: activities of specific companies regarding climate change	Intra/Inter-Agency and Law Enforcement
FOIL160286_000013-000014	Email	2/11/2015	Lemuel Srolovic	Jodi Feld and Mauricio Roma	Meeting re: activities of	Intra/Inter-Agency and

Bates Range	Document Type	Document Date	Author(s)	Recipient(s)	Subject	Exemption or Privilege
					specific companies regarding climate change	Law Enforcement
FOIL160286_000015-000016	Email	2/19/2015	Lemuel Srolovic	John Oleske, Michael J. Myers, Alvin Bragg and Steven Glassman	Meeting re: activities of specific companies regarding climate change	Intra/Inter-Agency and Law Enforcement
FOIL160286_000017-000018	Email	2/23/2015	Lemuel Srolovic	John Oleske, Michael J. Myers, Jodi Feld, Mauricio Roma and Guy Ben-Ishai	Sharing news article re: activities of specific companies regarding climate change	Intra/Inter-Agency and Law Enforcement
FOIL160286_000019-000020	Email	2/21/2015	Lemuel Srolovic	Lemuel Srolovic	Sharing news article re: activities of specific companies regarding climate change	Law Enforcement
FOIL160286_000021-000022	Email	2/19/2015	Lemuel Srolovic	Joan Smith	Meeting re: activities of specific companies regarding climate change	Intra/Inter-Agency and Law Enforcement
FOIL160286_000023-	Email	2/19/2015	Lemuel	Joan Smith	Meeting re:	Intra/Inter-

Bates Range	Document Type	Document Date	Author(s)	Recipient(s)	Subject	Exemption or Privilege
000024			Srolovic		activities of specific companies regarding climate change	Agency and Law Enforcement
FOIL160286_000025	Email	2/19/2015	Lemuel Srolovic	Joan Smith	Meeting re: activities of specific companies regarding climate change	Intra/Inter-Agency and Law Enforcement
FOIL160286_000026	Email	2/19/2015	Lee Wasserman	Lemuel Srolovic and Steven Glassman	Meeting re: activities of specific companies regarding climate change	Law Enforcement
FOIL160286_000027-000028	Email	2/11/2015	Jodi Feld	Lemuel Srolovic and Mauricio Roma	Meeting re: activities of specific companies regarding climate change	Intra/Inter-Agency and Law Enforcement
FOIL160286_000029-000030	Email	2/12/2015	Mauricio Roma	Jodi Feld and Lemuel Srolovic	Meeting re: activities of specific companies regarding climate change	Intra/Inter-Agency and Law Enforcement
FOIL160286_000031-000032	Email	2/11/2015	Lee Wasserman	Lemuel Srolovic	Meeting re: activities of	Law Enforcement

Bates Range	Document Type	Document Date	Author(s)	Recipient(s)	Subject	Exemption or Privilege
					specific companies regarding climate change	
FOIL160286_000033	Email	2/11/2015	Lee Wasserman	Lemuel Srolovic	Meeting re: activities of specific companies regarding climate change	Law Enforcement
FOIL160286_000034-000035	Email	2/11/2015	Lemuel Srolovic	Lee Wasserman	Meeting re: activities of specific companies regarding climate change	Law Enforcement
FOIL160286_000036-000037	Email	2/11/2015	Lemuel Srolovic	Lee Wasserman	Meeting re: activities of specific companies regarding climate change	Law Enforcement
FOIL160286_000038-000039	Email	2/21/2015	Lee Wasserman	Lemuel Srolovic and Steven Glassman	Sharing news article re: activities of specific companies regarding climate change	Law Enforcement
FOIL160286_000040-000041	Email	2/22/2015	Lee Wasserman	Lemuel Srolovic and Steven	Sharing news article re:	Law Enforcement

Bates Range	Document Type	Document Date	Author(s)	Recipient(s)	Subject	Exemption or Privilege
				Glassman	activities of specific companies regarding climate change	
FOIL160286_000042-000043	Email	2/20/2015	Joan Smith	Lemuel Srolovic	Meeting re: activities of specific companies regarding climate change	Intra/Inter-Agency and Law Enforcement
FOIL160286_000044-000045	Email	2/19/2015	Lee Wasserman	Lemuel Srolovic	Meeting re: activities of specific companies regarding climate change	Law Enforcement
FOIL160286_000046-000047	Email	2/19/2015	Lee Wasserman	Lemuel Srolovic	Meeting re: activities of specific companies regarding climate change	Law Enforcement
FOIL160286_000048-000050	Email	2/23/2015	Lemuel Srolovic	Alan Belensz	Meeting re: activities of specific companies regarding climate change	Intra/Inter-Agency and Law Enforcement
FOIL160286_000051	Email	2/19/2015	Lemuel Srolovic	Lee Wasserman	Meeting re: activities of	Law Enforcement

Bates Range	Document Type	Document Date	Author(s)	Recipient(s)	Subject	Exemption or Privilege
					specific companies regarding climate change	
FOIL160286_000052-000053	Email	2/19/2015	Lemuel Srolovic	Lee Wasserman and Steven Glassman	Meeting re: activities of specific companies regarding climate change	Law Enforcement
FOIL160286_000054-000055	Email	2/24/2015	Michael J. Myers	Alan Belensz and Lemuel Srolovic	Sharing news article re: activities of specific companies regarding climate change	Intra/Inter-Agency and Law Enforcement
FOIL160286_000056	Email	2/23/2015	Lee Wasserman	Lemuel Srolovic	Meeting re: activities of specific companies regarding climate change	Law Enforcement

Total	Intra/Inter-Agency	Law Enforcement
26	13	26

Grand Total (Part A & Part B)	Intra/Inter-Agency	Law Enforcement
34	19	34

Exhibit S30

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Becky Wasserman
@becky_wasserman

So proud of @leehwasserman for helping make this happen #ExxonKnew nyti.ms/1XTcNBo

3:29 AM - 6 Nov 2015

Exxon Mobil Investigated for Possible Climate Change Lies by New York Attorney General

The sweeping inquiry focuses on whether the oil company lied to the public and investors over the risks of climate change.

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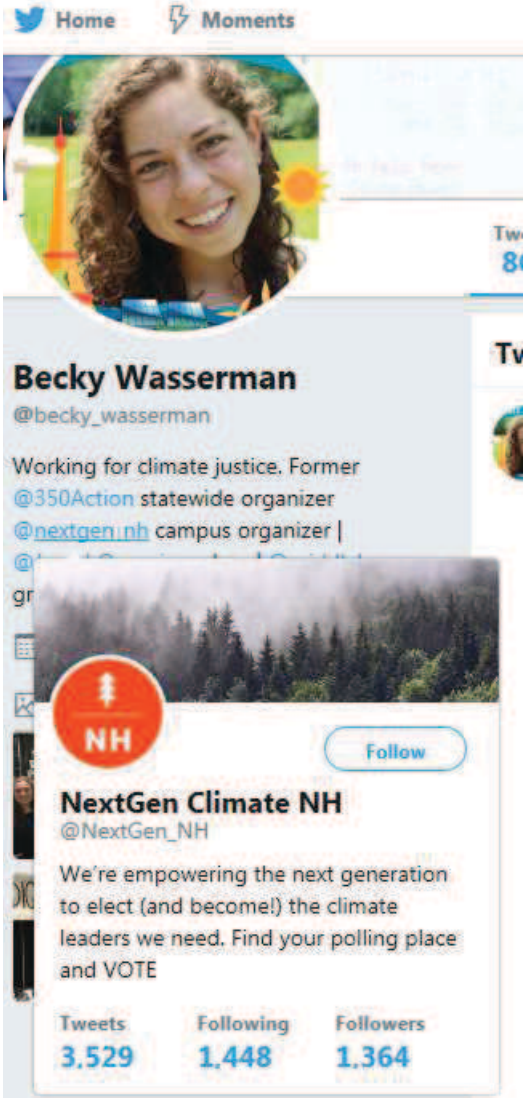
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Exhibit S31

Rockefeller Foundations Enlist Journalism in 'Moral' Crusade Against ExxonMobil

Media squeals when corporations sponsor self-serving reporting but lap it up when agenda squares

By Ken Silverstein • 01/06/17 12:30pm

Rex Tillerson, chairman and CEO of ExxonMobil and Donald Trump's pick for secretary of state. Flickr Creative Commons

When corporations and right-wing business groups fund think tanks and non-profits they are invariably called out, quite rightly, for trying to buy and shape media coverage. Journalists tend to dismiss the paid-for studies and reports as tainted and, if they cite them at all, flag said studies and reports with consumer warnings about their problematic origins.

No industry has been more criticized for seeking to influence the media than oil and gas, and no single company more targeted than ExxonMobil. The company's CEO, Rex Tillerson, is of course Donald Trump's nominee to be secretary of state, and ExxonMobil is the world's largest oil company.

An NPR story last year thrashed the company for "pouring millions and millions of dollars" into dozens of groups, "some of which were transparently industry front groups, and some of which

were right-wing economics advocacy groups, that themselves spent decades in various degrees of climate denial."

However, when liberal advocacy groups and foundations fund journalism directly, there's less discussion about potential conflicts of interests or the integrity of the work product — and especially if the journalism embraces a beloved cause like climate change and attacks a popular villain like the fossil fuel industry.

A case in point is how two Rockefeller family foundations have been involved in an advocacy campaign that accuses ExxonMobil of covering up what it knew about climate change in order to maximize its profits while endangering the American public. Part of the campaign has been to bring legal action against the company, on the grounds that it acted similarly to tobacco companies that hid the link between smoking and cancer. Meanwhile, Rockefeller foundations have funded journalism enterprises that have produced stories that overlap with the advocacy agenda.

For the most part, the Rockefellers have not only avoided criticism but have had their liberal do-gooder brand polished by, among others, the *New York Times*, the *Washington Post*, the *New Yorker*, the *New York Review of Books* and *NPR* (whose funders include the Rockefeller Foundation). And while the Rockefellers have portrayed their fight as one purely driven by ethics and virtue, crusading against climate change hasn't been bad for foundation business either.

(Note: Not all individual members of the 200-plus Rockefeller family have endorsed the campaign, but I'm using "the Rockefellers" for shorthand at times in this story because many of them have and two of their foundations have funded and supported the Exxon campaign.)

Back in 2014, the Rockefeller Brothers Fund was showered with commendations after announcing that it would no longer invest its $818 million portfolio in fossil fuels. The divestment decision, which was seen as a role model and has since been embraced by other large foundations, was portrayed as a profoundly moral one. "It became increasingly uncomfortable to be fighting global warming on the one hand [through charitable grants] and then investing in businesses that cause global warming," Fund president Stephen Heintz said.

Earlier this year, the Rockefeller Family Fund announced it would dump its ExxonMobil stock, referring to the company's "morally reprehensible conduct" in suppressing information about global warming. This, too, was greeted with lavish praise and seen as a sign of enhanced Rockefeller benevolence because family patriarch John D. Rockefeller founded Standard Oil, of which ExxonMobil is the largest direct descendant.

Valerie Rockefeller Wayne. Screenshot

In 2015 Valerie Rockefeller Wayne, chair of the Rockefeller Brothers Fund, explained the divestment to *The Guardian*: "We all have a moral obligation. Our family in particular – the money that is for our grant-making, and what we are doing now, and that helps fund our lifestyles came from dirty fuel sources."

It's all quite heartwarming, yet there are a few reasons to be at least a little bit skeptical. First, the two foundations took these steps almost a century and a half after Standard Oil was created. Family members have made a lot of money in the meanwhile and it seems pretty late in the day to win plaudits for dropping fossil fuel investments.

It's also unlikely that divestment will have any adverse impact on family members' lifestyles—the Rockefellers are the 23rd richest family in the U.S. with a fortune of $11 billion, according to Forbes—or on their foundations' bottom line. Oil prices had already started dropping when the announcement was made in 2014 and have generally plunged since, tanking the shares of energy stocks. As an industry, energy stocks were the worst performers of 2015. ExxonMobil's share price has dropped by more than 10 percent in the past two years.

Meanwhile, the Rockefeller Brothers Fund didn't drop fossil fuel investments entirely and has said it would only do it—and ramp up promised investments in renewables—on a phased-in basis. Heintz has said it would only fulfill the pledgewhen it figured out how it could be done "without causing harm to the overall performance of [our] investment portfolio" (The fund still has about $24 million in fossil fuel investments, which represents 3.1 percent of the endowment—when the process started, 6.6 percent of the endowment was invested in fossil fuels. The fund has invested $100 millionin alternative energy sources over the same period).

Beyond that, charities, not just corporations, deserve scrutiny when it comes to their donations. The Rockefellers are a powerful family, and historically they haven't been shy about throwing money around to promote a political agenda that has not always been altruistic.

Way back at the turn of the 20th century, John D. Rockefeller recognized the value of family branding and political engineering and spent lavishly to soften his Robber Baron image. "Not even God himself can stop me from giving my money to the University of Chicago," he wrote, and his investment paid off as the school's academics duly trotted out studies proving the virtues of the

"free market" and the inevitability and ultimately proper capitalist distribution of income that made the few rich and the many poor.

"I have no sympathy…for the Tillerson gang at Exxon, but the Big Green foundations operate in pretty much the same way."
– Jeffrey St. Clair

Back in the 1990s, the Rockefeller Family Fund was run by a man named Donald Ross, who was close to the Democratic Party and who sought to shape the environmental movement's agenda to match up with Bill Clinton's administration. The Fund also held a number of surprising holdings with oil and gas companies, mining companies and timber firms. Indeed, the Fund was simultaneously running a campaign — unsuccessful in the end — to protect ancient forests in the Pacific Northwestand holding a strong position in timber firms stripping the region like Weyerhaeuser and Boise Cascade.

"I have no sympathy at all for the Tillerson gang at Exxon, but the Big Green foundations operate in pretty much the same way when it comes to public relations," Jeffrey St. Clair, the editor of CounterPunch and a longtime environmental activist, told the Observer. "It's not their style to give money away without expecting something in return."

The Rockefeller Family Foundation (which has an endowment of about $130 million) has long targeted the oil industry and honed in on ExxonMobil last January during a meeting at its Manhattan offices. The agenda was to "establish in the public's mind that Exxon is a corrupt institution that has pushed humanity (and all creation) toward climate chaos and grave harm" and to "delegitimize" Exxon as a political actor. The ultimate goal would include "getting discovery" from ExxonMobil through legal action brought by public officials, thus "creating scandal" around the country.

Participants at the meeting included activist groups like Greenpeace and Public Citizen, and trial lawyers who have won judgments against the industry before, like Sharon Eubanks, the federal government's lead counsel in its racketeering case against Philip Morris, and Matt Pawa, a litigator who had won a $236 million verdict against ExxonMobil in 2013 for contaminating New Hampshire's groundwater.

But to be successful, the advocacy campaign needed to strike a chord in the media, and its key themes were covered by *InsideClimate News*, "an independent, not-for-profit, non-partisan news organization" that covers energy issues "plus the territory in between where law, policy and public opinion are shaped."

Back in 2013, it won a Pulitzer Prize, which are awarded by Columbia University, for an investigation into a million-gallon spill of Canadian tar sands oil into the Kalamazoo River. It was nominated again in 2016 for a series called "Exxon: The Road Not Taken," which argued that the company had suppressed the danger of climate change for decades. (It didn't win, but Columbia gave it its John B. Oakes Award for Distinguished Environmental Journalism.)

The Rockefeller Brothers Fund is one of*InsideClimate News*' biggest funders, but it says it knew nothing about the ExxonMobil series until it was published.

The advocacy campaign's argument was also amplified by the Columbia Journalism School and its dean, Steve Coll, a well-regarded, Pulitzer Prize-winning journalist who had previously been a top editor at the *Washington Post*, head of the New America Foundation and the author of several bestselling books.

Steve Coll speaks at an event about "ExxonMobil and American Power" in Kansas City in 2013. YouTube

Rockefeller family foundations donated more than $1 million to the New America Foundation after Coll was appointed to run it in 2007. His salary there quintupled over five years to $320,730, nonprofit disclosure forms show. During Coll's years at the New America Foundation he wrote *Private Empire*, a sharply critical corporate biography of ExxonMobil. (I liked it and spoke to Coll when he was researching the book because I'd written extensively about ExxonMobil's sleazy deals with the corrupt dictatorship of Equatorial Guinea, which he covered.)

When private companies give money to think tanks, it's pretty apparent that it's part of a lobbying or media campaign. For example, Google CEO Eric Schmidt chaired New America's board and his company is one of its largest donors. The think tank also had company-paid Google Scholars, as the *Washington Post* noted in a story titled "Google, once disdainful of lobbying, now a master of Washington influence." With their lavish endowments and extensive political agendas, one assumes that foundations were also looking to win influence when they donate to think tanks.

In 2012, Coll left New America and the following year signed on at Columbia. The two Rockefeller foundations donated a combined $300,000 to Columbia in 2013 and 2014, which helped underwrite a partnership between the university's Energy & Environmental Reporting Project and the *Los Angeles Times.* They teamed up on a series that covered much of the same ground as the *InsideClimateNews* series and that also was nominated for a Pulitzer Prize. The stories (written by the students who took part in the fellowship) initially failed to disclose — until after ExxonMobil protested — that the Rockefeller family had donated to the Project, along with other liberal foundations like the Energy Foundation, Open Society Foundations and the Tellus Mater Foundation.

"We supported public interest journalism to better understand how the fossil fuel industry was dealing with the reality of climate science internally and publicly," Lee Wasserman, director of the Rockefeller Family Fund — and the convener of the January meeting at its offices which laid out the Exxon campaign—told Reuters when its funding was exposed.

After these series were published, New York Attorney General Eric Schneiderman dutifully launched an investigation of ExxonMobil and the state has issued subpoenas seeking records of the company's climate research for the past 40 years. Other state attorneys general have also announced investigations of ExxonMobil and several members of Congress called on the Department of Justice to investigate the company using the Racketeer Influenced and Corrupt Organizations Act (RICO), which was designed to prosecute mob activity and was also employed to investigate tobacco companies in the 1990s.

The company has launched an aggressive counterattack against the Rockefeller foundations for organizing what ExxonMobil calls a "conspiracy" against it. It has gotten a Texas judge to approve subpoenas for foundation communication with its campaign allies. Texas Congressman Lamar Smith, who receives significant political donations from ExxonMobil, has sent a letter to Rockefeller funds with subpoenas for similar internal files.

Alan Jeffers, an ExxonMobil spokesman, has accused the Rockefeller family of financing journalism and seeking to prompt legal action against the company. In an email, he criticized late exposure of Rockefeller funding for the reporting and accused activists and the media of using "cherry-picked statements attributed to various company employees to wrongly suggest definitive conclusions were reached by company researchers at the early stages of scientific investigation of the potential for climate change…To suggest that we had reached definitive conclusions, decades

before the world's experts and while climate science was in an early stage of development, is not credible."

Jeffers suggested that Rockefeller funding for Columbia and *InsideClimateNews* weighted the reportorial scales and produced predetermined findings that supported the foundations' advocacy agenda.

Attorneys general like Eric Schneiderman may have been deceived by a Los Angeles Times story about ExxonMobil. Twitter

InsideClimate News says all of its work is independent of donors and Stacy Feldman, the group's executive editor, has issued a statement saying that ExxonMobil has never specified anything "inaccurate or misleading in the series, nor has it requested any corrections."

Steve Coll told me that the Columbia/*Los Angeles Times* series was not an initiative of the Rockefellers but grew out of his reporting of *Private Empire*. "It was entirely my idea, there was reporting left on the table from the book that had to do with what ExxonMobil knew about climate change and when it knew it," he told me. "I then went out and raised the money for it after I got to Columbia. We gave them updates about the project, but the journalism component was totally independent and Rockefeller had no input or editorial control."

Coll stood by the series' findings, which he said were fair and deeply reported. He acknowledged that working with foundations that have advocacy positions created an "appearance problem," that he said is the topic of an ongoing conversation within journalism, including at Columbia. "Foundation funding is something of a new frontier and there are uncomfortable aspects to it," he said. "We're working on a new policy at Columbia to provide to donors, laying out the need for editorial independence and disclosure requirements."

Heintz told the Observer that the Rockefeller Brothers Fund and the Rockefeller Family Fund are distinct institutions that share office space but have different boards and operate independently. He said they didn't coordinate their funding of the journalism projects.

His fund has given *InsideClimate News* grants of $800,000 over the four years since it was founded, money Heinz said was for general support, not to attack ExxonMobil. The fund gave $100,000 over two years to Columbia's Graduate School of Journalism postgraduate fellowship programs, which was used to support the Energy and Environmental Reporting project.

"We knew because of their proposal that they'd be looking at what the oil companies knew and when they knew it, and that they'd be looking at Exxon but we had no input into their work," Heinz said. "We didn't know that InsideClimate News and Columbia were working on similar investigations.

The difference between foundation funding and corporate funding, he said, is the profit motive. "Their aim is to make money and that's a very different starting point than philanthropy," he said. "Exxon has far greater financial resources than we have and in addition they are able to lobby, which we're prohibited from doing."

I'm not attacking the integrity of the reporting on ExxonMobil. And I'm in no position to, since I've received foundation and nonprofit backing for my own work — which supported a lot of critical work about the energy industry, including a book called *The Secret World of Oil*, which was backed by George Soros' Open Society Foundations and includes quite a bit of criticism of ExxonMobil.

But all of this points to a problem in journalism because almost no one funds investigations anymore, except foundations and non-profits. Corporations always have an agenda when they dispense money to shape public opinion. But so do foundations and private donors. It's hard to argue that it's only a problem when you disagree with the point of view being promoted.

Exhibit S32

Confirmed: Rockefellers Admit Funding Pay-to-Play Attack "Journalism" Against Exxon

2:02pm EST December 2, 2016 Tweet

by Katie Brown, PhD
, Washington, D.C.

After over a year of continuous denial, two members of the Rockefeller family appeared this morning on national TV to own up to the fact that they specifically paid the Columbia School of Journalism and InsideClimate News to write hit pieces on ExxonMobil, in what can only be characterized as a pay-to-play attack on the company.

A segment that aired on CBS This Morning with Charlie Rose featured interviews with David Kaiser of the Rockefeller Family Fund and Valerie Rockefeller Wayne of the Rockefeller Brothers Fund, reporting:

> **"The charities [the Rockefellers] run funded investigations that appeared in the Los Angeles Times and InsideClimate News."**

In yet another sign that the Rockefellers have suddenly decided to embrace their bankrolling of #ExxonKnew publically, NPR published a column over the weekend by Marcelo Gleiser who even attributed the hit pieces to the Rockefeller Family Fund, not InsideClimate or Columbia. As Gleiser put it,

> **"The investigative report from the RFF is quite clear in its findings."**

This admission is especially striking considering that the Rockefeller foundations that are bankrolling this campaign – primarily the Rockefeller Brothers Fund and the Rockefeller Family Fund – have maintained that they have "hands-off" relationships with InsideClimate and Columbia, and therefore didn't exercise any editorial control over the results of their Exxon climate "investigations." As Lee Wasserman of the Rockefeller Family Fund said in an interview with *Reuters* last March,

> "**No specific company was targeted in our push to drive better public understanding and better climate policy**."

That same month, InsideClimate News reported:

> "Rockefeller Family Fund Director Lee Wasserman said the charity supports public interest journalism, including InsideClimate News, but **keeps at arm's length from the work being done**.

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> 'We first learned about it when everybody else read about it,' Wasserman said. 'The **information that was unearthed was stunning** and struck us as beyond the pale of what a corporation interested in protecting the public interest would do. … As a matter of good governance, we felt it imperative to sever our tie with the corporation.'"

And, of course, InsideClimate's website claims: "Donors who support our award-winning environmental journalism do not have access to our editorial process or decision-making."

The Columbia School of Journalism has also denied that the Rockefellers had any say in what they've been up to. In fact, the Columbia Journalism Review interviewed Dean of the Columbia Graduate School of Journalism, Steve Coll, and reported the exchange this way:

> "**Both the [*Los Angeles*] *Times* and Coll have reiterated that the project's funders had a hands-off relationship with its journalism**…In addressing those complaints in his written response to Exxon Mobil, Coll mentioned the energy giant's support of Columbia University research in other fields: 'You therefore understand that the issue is not who provided funding for this or any other Columbia University project, but whether the work is done independent of the funders…**The fact is that this reporting was not subject to any influence or control by the funders,** the *Times* maintained full editorial control over all that it chose to publish, and your letter provides no information to doubt that this is so.'" (emphasis added)

Coll went on to explain,

> "It's similar to the ethics that had to be managed in the days when this kind of work was supported by commercial advertising," Coll says. "[Advertisers] were very financially important to the newspaper, but the publisher and the editor in the newsroom figured out how to build a wall between the advertisers and the work. And that's exactly what we have to do here: **We have to build a wall between the funders and the work. That's what I'm responsible for**." (emphasis added)

Failure to disclose

The Rockefellers haven't always been so forthcoming about their involvement in these hit pieces. In fact, when the Columbia stories appeared in the *Los Angeles Times* last year, there was no mention whatsoever that the Columbia School of Journalism was funded by Rockefellers. Only after Energy In Depth and other news outlets called them out did the outlet quietly add a correction noting the funding source, but that happened several months after the stories were published.

It wasn't just an oversight by the *LA Times*, either. Even the website of the Columbia Energy and Environment Reporting Fellowship did not originally disclose its Rockefeller funding according to an archived copy of the page. But once again, after they were called out, the fellowship's website was quietly updated to include its financial connections to the Rockefeller Family Fund and other #ExxonKnew organizations.

After this disclosure problem came to light, the Columbia Journalism Review reported that it raises ethical questions, specifically about funding sources for non-profit organizations that produce what many might mistake for objective reporting. As the CJR explains,

> "But the practice also **raises questions of balance** in what subjects get reported, as well as **appropriate disclosure of the outside funders and their political leanings**. In the case of Columbia, The Energy and Environmental Reporting Project is **funded in part by a group of philanthropic organizations, at least one with a clear advocacy bent** on the issue. The **names of the funders were not listed** on the two articles when they were published by the Los Angeles Times, though they were **later added online**." (emphasis added)

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1 hour ago

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Some have even suggested that the Columbia School of Journalism stands to lose its once sterling reputation in the wake of this scandal.

Forced to come clean?

Considering all the things that the #ExxonKnew campaign has tried to keep hidden, owning up to bankrolling the entire #ExxonKnew effort was likely not in the original plan. But since they've been exposed to this great extent, they've pretty much had to come clean. That's why they're appearing on CBS This Morning and writing columns like the one that appeared in *New York Review of Books* in which, Lee Wasserman of Rockefeller Family Fund admitted that his organization "paid for a team of independent reporters from Columbia University's Graduate School of Journalism to try and determine what Exxon and other oil and gas companies had really known about climate science, and when."

This new strategy has put the spotlight on the family and revealed dissent among their ranks by those in the Rockefeller family that feel the campaign against Exxon is "deeply misguided." In the CBS segment today, Ariana Rockefeller of the Rockefeller Foundation (which is the flagship foundation and is separate from Rockefeller Family Fund and Rockefeller Brothers Fund) said the Rockefellers bankrolling #ExxonKnew "do not speak on behalf of all 200 family members." She also told the *New York Times* Rockefeller Brothers Fund and Rockefeller Family Fund's efforts are "counterproductive to our goal of protecting the environment by undermining Exxon's ongoing good work in clean and renewable energy."

The Rockefeller's decision to come clean as the masterminds behind the #ExxonKnew campaign has not had the effect they had hoped for. It has exposed a deep rift within their family and raised serious ethical questions about editorial control in non-profit journalism. In an interestingly timed email, InsideClimate News announced it is seeking donations "to ensure that our award-winning nonprofit news organization remains **fiercely independent** and courageously persistent." (emphasis added) That 'fierce independence' apparently doesn't apply when the Rockefellers are signing the checks.

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Exhibit S33

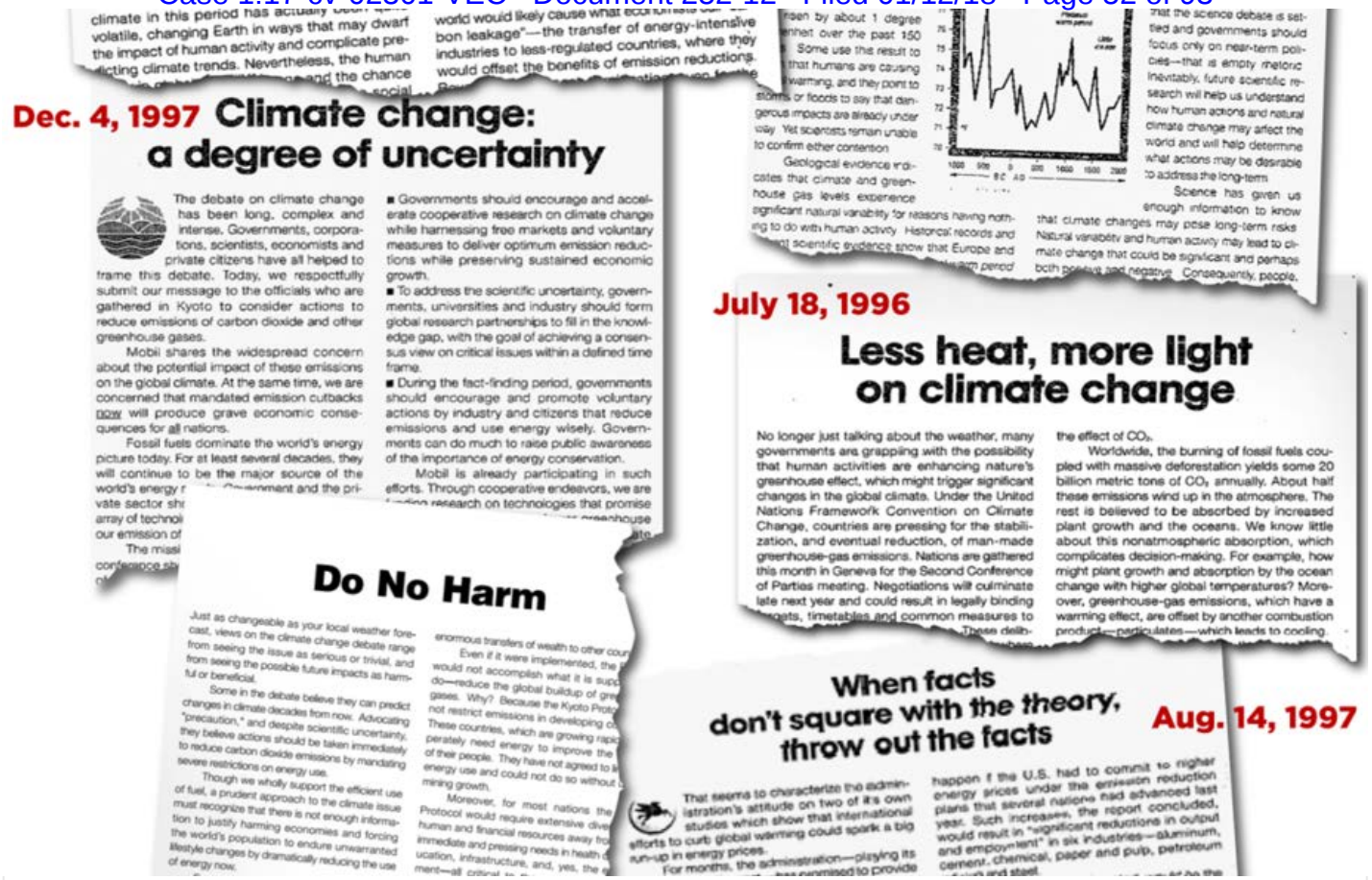
EXXON: THE ROAD NOT TAKEN

Exxon Sowed Doubt About Climate Science for Decades by Stressing Uncertainty

Collaborating with the Bush-Cheney White House, Exxon turned ordinary scientific uncertainties into weapons of mass confusion.

BY DAVID HASEMYER AND JOHN H. CUSHMAN JR.

OCT 22, 2015



Dec. 4, 1997

Climate change: a degree of uncertainty

The debate on climate change has been long, complex and intense. Governments, corporations, scientists, economists and private citizens have all helped to frame this debate. Today, we respectfully submit our message to the officials who are gathered in Kyoto to consider actions to reduce emissions of carbon dioxide and other greenhouse gases.

Mobil shares the widespread concern about the potential impact of these emissions on the global climate. At the same time, we are concerned that mandated emission cutbacks now will produce grave economic consequences for all nations.

Fossil fuels dominate the world's energy picture today. For at least several decades, they will continue to be the major source of the world's energy

- Governments should encourage and accelerate cooperative research on climate change while harnessing free markets and voluntary measures to deliver optimum emission reductions while preserving sustained economic growth.
- To address the scientific uncertainty, governments, universities and industry should form global research partnerships to fill in the knowledge gap, with the goal of achieving a consensus view on critical issues within a defined time frame.
- During the fact-finding period, governments should encourage and promote voluntary actions by industry and citizens that reduce emissions and use energy wisely. Governments can do much to raise public awareness of the importance of energy conservation.

Mobil is already participating in such efforts. Through cooperative endeavors, we are

Do No Harm

July 18, 1996

Less heat, more light on climate change

No longer just talking about the weather, many governments are grappling with the possibility that human activities are enhancing nature's greenhouse effect, which might trigger significant changes in the global climate. Under the United Nations Framework Convention on Climate Change, countries are pressing for the stabilization, and eventual reduction, of man-made greenhouse-gas emissions. Nations are gathered this month in Geneva for the Second Conference of Parties meeting. Negotiations will culminate late next year and could result in legally binding

the effect of CO_2.

Worldwide, the burning of fossil fuels coupled with massive deforestation yields some 20 billion metric tons of CO_2 annually. About half these emissions wind up in the atmosphere. The rest is believed to be absorbed by increased plant growth and the oceans. We know little about this nonatmospheric absorption, which complicates decision-making. For example, how might plant growth and absorption by the ocean change with higher global temperatures? Moreover, greenhouse-gas emissions, which have a warming effect, are offset by another combustion

When facts don't square with the theory, throw out the facts

Aug. 14, 1997

Credit: Paul Horn/InsideClimate News

As he wrapped up nine years as the federal government's chief scientist for global warming research, Michael MacCracken lashed out at ExxonMobil for opposing the advance of climate science.

His own great-grandfather, he told the Exxon board, had been John D. Rockefeller's legal counsel a century earlier. "What I rather imagine he would say is that you are on the wrong side of history, and you need to find a way to change your position," he wrote.

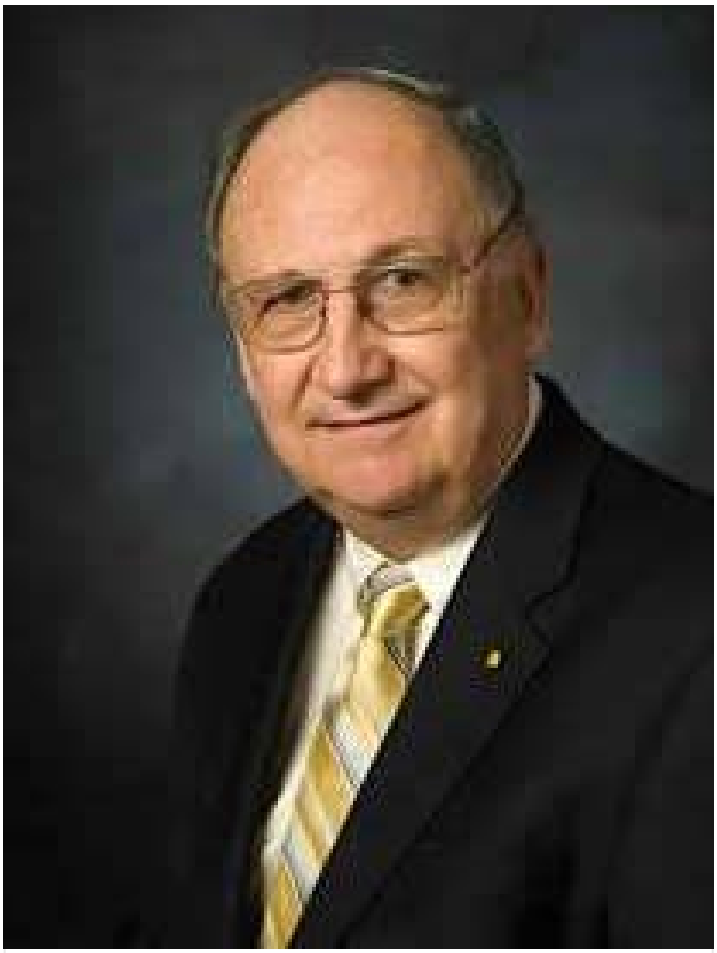
Addressed to chairman **Lee Raymond** on the letterhead of the United States Global Change Research Program, **his September 2002 letter** was not just forceful, but unusually personal.

No wonder: in the opening days of the oil-friendly Bush-Cheney administration, Exxon's chief lobbyist had written the new head of the White House environmental council demanding that **MacCracken** be fired for "political and scientific bias."

Exxon was also attacking other officials in the U.S. government and at the UN's Intergovernmental Panel on Climate Change (IPCC), MacCracken wrote, interfering with their work behind the scenes and distorting it in public.

Exxon wanted scientists who disputed the mainstream science on **climate change** to oversee Washington's work with the IPCC, the authoritative body that defines the scientific consensus on global

warming, documents written by an Exxon lobbyist and one of its scientists show. The company persuaded the White House to block the reappointment of the IPCC chairman, a World Bank scientist. Exxon's top climate researcher, **Brian Flannery**, was pushing the White House for a wholesale revision of federal climate science. The company wanted a new strategy to focus on the uncertainties.



Michael MacCracken (Credit: Michael MacCracken)

"To call ExxonMobil's position out of the mainstream is thus a gross understatement," MacCracken wrote. "To be in opposition to the key scientific findings is rather appalling for such an established and scientific organization."

MacCracken had a long history of collaboration with Exxon researchers. He knew that during the 1970s and 1980s, well before the general public understood the risks of global warming, the company's researchers had worked at the cutting edge of climate change science. He had edited and even co-authored some of their reports. So he found it galling that Exxon was now leading a concerted effort to sow confusion about fossil fuels, carbon dioxide and the greenhouse effect.

Exxon had turned a colleague into its enemy.

It was a vivid example of Exxon's undermining of mainstream science and embrace of **denial** and misinformation, which became most pronounced after President George W. Bush took office. The campaign climaxed when Bush pulled out of the Kyoto Protocol in 2001. Taking the U.S. out of the international climate change treaty was Exxon's key goal, and the reason for its persistent emphasis on the uncertainty of climate science.

This **in-depth series by InsideClimate News** has explored Exxon's early engagement with climate research more than 35 years ago – and its subsequent use of scientific uncertainty as a shield against forceful action on global warming. The series is based on Exxon documents, interviews, and other evidence from an eight-month investigation.

"What happened was an incredible disconnect in people trained in physical science and engineering," recalled **Martin Hoffert**, a New York University professor who collaborated with Exxon's team as its early computer modeling confirmed the emerging scientific consensus on global warming. "It's an untold story of how we got to the point where climate change has become a threat to the world."

The Uncertainty Agenda

As the Bush-Cheney administration arrived in the White House in 2001, ExxonMobil (NYSE: XOM) now had partners for a climate uncertainty strategy.

Just weeks after Bush was sworn in, Exxon's top lobbyist Randy Randol **sent the White House a memo** complaining that "Clinton/Gore carry-overs with aggressive agendas" were still playing a role at the IPCC as it prepared its next assessment of the climate science consensus.

MacCracken and three colleagues should be replaced, or at least kept out of "any decisional activities," he wrote. Meanwhile, U.S. input to the IPCC should be delayed.

Further, two scientists highly critical of the prevailing consensus should be enlisted: John Christy of the University of Alabama should take the science lead and Richard Lindzen of MIT should review U.S. submissions to the IPCC.

Exxon had been circulating a proposal to fundamentally overhaul MacCracken's global change research program, by emphasizing the uncertainties of climate science.

The timing was not coincidental because the administration, as required by law, was about to lay out a new federal climate research strategy. Exxon and its allies wanted the work done during the Clinton-Gore years to be marginalized.

In March 2002, Flannery, Exxon's science strategy and programs manager, contacted John H. Marburger, the president's incoming assistant for science and technology, **to pitch the company's favored approach of emphasizing the uncertainty**. Earlier discussions, he asserted, "have not sought to place the uncertainty in the context of why it is important to public policy."

Exxon's position paper, attached to his letter, took a dig at the work of the IPCC.

"A major frustration to many is the all-too-apparent bias of IPCC to downplay the significance of scientific uncertainty and gaps," the memo said.

A Seat at the Table

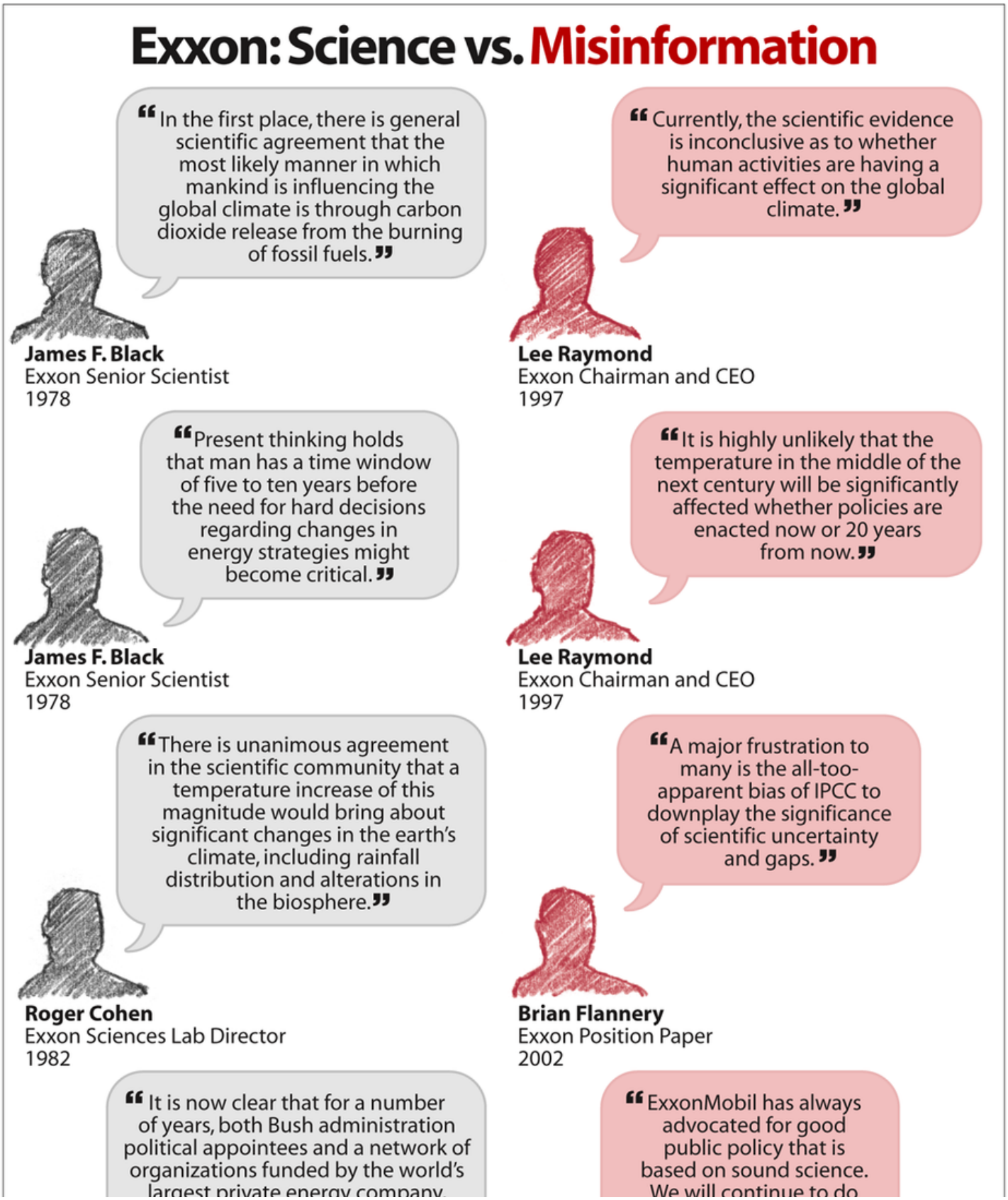
Exxon had not always been so at odds with the prevailing science.

Since the late 1970s, Exxon scientists had been **telling top executives** that the most likely cause of climate change was carbon pollution from the combustion of fossil fuels, and that it was important to get a grip on the problem quickly. Exxon Research & Engineering had **launched innovative ocean research** from aboard the company's biggest supertanker, the Esso Atlantic. ER&E's modeling experts, by the early 1980s, had **confirmed the consensus** among outside scientists about the climate's sensitivity to carbon dioxide.

"The facts are that we identified the potential risks of climate change and have taken the issue very

seriously," said Ken Cohen, Exxon's vice president of public and government affairs, **in a press release** on October 21 addressing the ICN reports. "We embarked on decades of research in collaboration with many parties."

Exxon has declined to answer specific questions from InsideClimate News.



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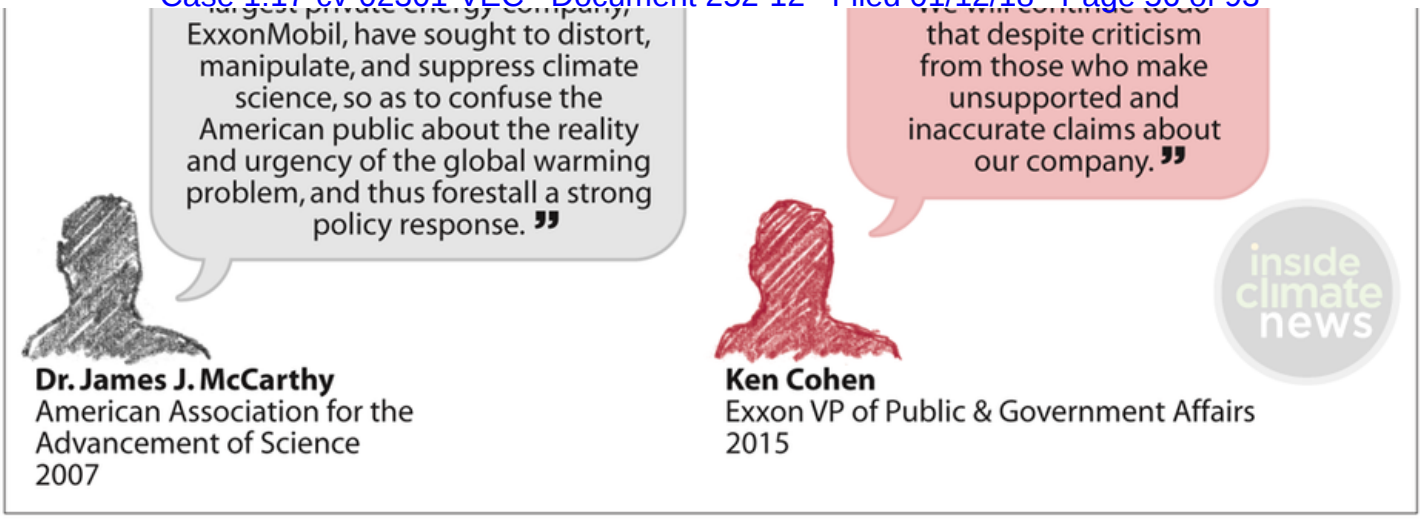


Research by InsideClimate News PAUL HORN / InsideClimate News

A **1980 memo proposed an ambitious public-relations plan** aimed at "achieving national recognition of our CO_2 Greenhouse research program."

"It is significant to Exxon since future public decisions aimed at controlling the build-up of atmospheric CO_2 could impose limits on fossil fuel combustion," said the memo. "It is significant to all humanity since, although the CO_2 Greenhouse Effect is not today widely perceived as a threat, the popular media are giving increased attention to doom-saying theories about dramatic climate changes and melting polar icecaps."

Most of all, Exxon wanted a seat at the policy-making table, and the credibility of its research had earned that. In 1979, David Slade, manager of carbon dioxide research at the Energy Department, called it "a model for research contributions from the corporate sector."

Sen. Gary Hart, a Colorado Democrat, invited **Henry Shaw**, an early Exxon scientist, to join the policy deliberations. He was the only industry representative invited to an October 1980 conference of the National Commission on Air Quality, newly set up by Congress, to discuss "whether potential consequences of increased carbon dioxide levels warrant development of policies to mitigate adverse effects."

Shaw's bosses agreed that he should attend, "both to be informed as to what actions or proposals that result and to bring objective thinking and information to the meeting," **Harold Weinberg**, Shaw's boss in Exxon Research and Engineering, wrote in a memo. But first, he said, Shaw needed to be briefed by public affairs executives "on possible hidden agenda and individual biases of which we may not already be aware."

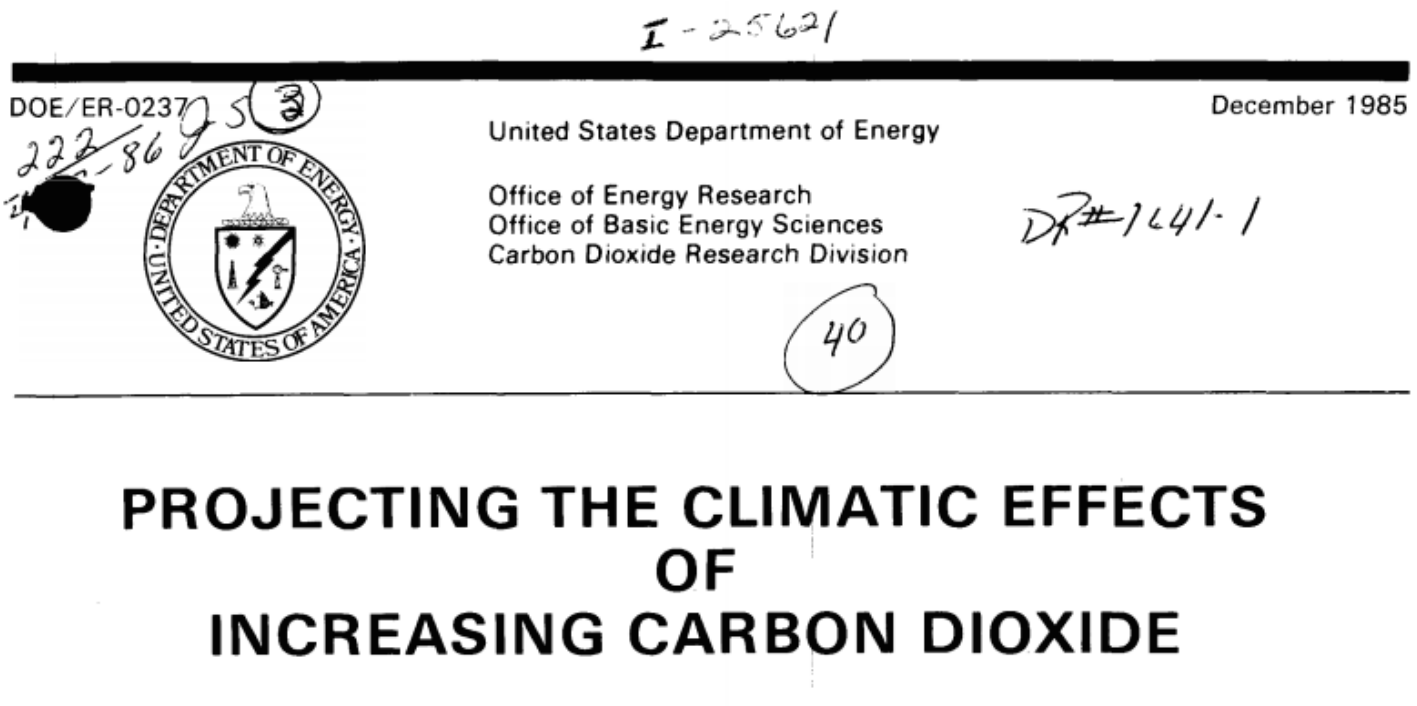
When Shaw gave feedback to the commission in December, **he noted the uncertainties about carbon dioxide and climate change**. At the same time, he wrote that it was "important" to place CO_2 on the nation's public policy agenda, as the commission was recommending, and supported the panel's suggestion that it was "timely to consider ways of reducing CO_2 emissions now."

He also backed a recommendation that the U.S. "seek to develop discussions on national and international policies."

In late spring of 1981, Flannery was one of the few industry representatives at a large gathering of accomplished scientists at Harper's Ferry, W. Va., for a Department of Energy "Workshop on First Detection of Carbon Dioxide Effects." He sat on a panel with NASA's James Hansen, who was about to publish a landmark study in Science magazine warning of significant warming even if controls were placed on carbon emissions.

The **workshop's proceedings** would declare that "scientists are agreed" that carbon dioxide was building up in the atmosphere, that the effects "are well known" and "will bring about an increase in the mean global temperature," and that it is "commonly accepted" that warming "will affect the biosphere through a change in climate."

Working with Hoffert, Flannery wrote a highly technical 50-page chapter to a **1985 Energy Department report**. Their modeling projected up to 6 degrees Celsius of warming by the end of the 21st century unless emissions of greenhouse gases were curtailed.



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DOE/ER-0237 December 1985

United States Department of Energy

Office of Energy Research
Office of Basic Energy Sciences
Carbon Dioxide Research Division

DR#1641-1

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PROJECTING THE CLIMATIC EFFECTS OF INCREASING CARBON DIOXIDE

Exxon researchers contributed key climate modeling to a 1985 Energy Department study that projected significant global warming, and said some climate change was already locked in. (Credit: DoE)

The influential government report said the models provided a "firm basis" for this kind of projection, and that "we are already committed to some of this warming as a result of emissions over the last several decades."

The Harper's Ferry conference was chaired by MacCracken; he also edited the warming report. He

recalled recently that "the underlying push was for a level of understanding that was convincing enough to let policymakers become aware of what the issue was that society faced."

As Hoffert put it in a recent interview, in those days at Exxon "there were no divisions, no agendas. We were coming together as scientists to address issues of vital importance to the world."

Fork in the Road

In 1988, James Hansen told Congress that there was now enough warming to declare that the greenhouse effect had arrived. Also that year, the United Nations set up the Intergovernmental Panel on Climate Change.

It was a moment that Exxon's climate experts had been forecasting for a decade: that as warming became unmistakable, governments would move to control it.

Looking backward, one Exxon document from the early 1990s reflects a trail of research into global warming stretching back "long before the issue achieved its current prominence."

An internal compendium of the company's environmental record, on file in the official ExxonMobil historical archives at the University of Texas-Austin, acknowledged the uncertainties that have always faced climate researchers, but it didn't downplay the risks.

"Fossil fuel use dominates as the source of man-made emissions of carbon dioxide," said one section of the encyclopedic review. "Current scientific understanding demonstrates the potential for climate change to produce serious impacts."

"For Exxon and the petroleum industry, potential enhancement of the greenhouse effect and the possibility of adverse climate are of particular and fundamental concern," it said.

Drilling for Uncertainty

The IPCC published its first report in 1990. Despite the scientific gaps, the panel warned that unrestrained emissions from burning fossil fuels would surely warm the planet in the century ahead. The conclusion, the IPCC said after intense deliberations, was "certain." It prescribed deep reductions in greenhouse gas emissions to stave off a crisis in the coming decades.

At this crucial juncture, Exxon pivoted toward uncertainty and away from the global scientific consensus.

At the IPCC's final session to draft its summary for policymakers, Exxon's Flannery was in the room as an observer. He took the microphone to challenge both the certainty and the remedy. None of the other scientists agreed with Flannery, and the IPCC brushed off Exxon's advice to water down the report, according to Jeremy Leggett's eyewitness account in his book, *The Carbon War*.

At a conference in June 1991, MacCracken joined a panel chaired by Flannery to work together on a

climate change project involving geo-engineering.

The contact, according to MacCracken, led to an unexpected solicitation from the oil lobby in Washington. Will Ollison, a science adviser at the American Petroleum Institute, in a fax marked urgent, asked MacCracken, then at the Lawrence Livermore National Laboratory, to write a paper highlighting the scientific uncertainties surrounding global warming.

The API, where Exxon held enormous sway, wanted him to write up the complex nuances in plain English – with an emphasis on the unknown, not the known.

Ollison said the IPCC's 1990 report "may not have adequately addressed alternative views."

"A review of these alternative projections would be useful in illustrating the uncertainties inherent in the 'consensus' views expressed in the IPCC report," Ollison wrote.

MacCracken rejected the task as "fruitless."

"I would caution you about too readily accepting whatever the naysayers put forth as a means of achieving balance," MacCracken wrote back.

Flannery, for his part, continued to emphasize uncertainty. And so did Exxon's new chairman and chief executive, Lee Raymond, who spoke of it repeatedly in public.

"Currently, the scientific evidence is inconclusive as to whether human activities are having a significant effect on the global climate," Raymond claimed in a speech delivered in 1996 to the Economic Club of Detroit.

"Many people, politicians and the public alike, believe that global warming is a rock-solid certainty," he said the next year in a speech in Beijing. "But it's not."

Addressing the World Petroleum Congress, which was meeting just before the conclusion of the Kyoto Protocol negotiations, Raymond even disputed that the planet was warming at all. "The earth is cooler today than it was 20 years ago," he said.

That was false. Authoritative climate agencies declared **1997 the warmest year** ever measured. Decade by decade, the warming has continued, in line with the climate models.

But Raymond, turning his back on Exxon researchers and their state-of-the-art work, mocked those climate models.

"1990's models were predicting temperature increases of two to five degrees Celsius by the year 2100. Last year's models say one to three degrees. Where to next year?"

"It is highly unlikely," he said, "that the temperature in the middle of the next century will be significantly

affected whether policies are enacted now or 20 years from now."

The Doubt Industry

Exxon and its allies had been working hard to spread this dilatory message.

First, they set up the Global Climate Coalition (GCC), a lobbying partnership of leading oil and automobile companies dedicated to defeating controls on carbon pollution.

"As major corporations with a high level of internal scientific and technical expertise, they were aware of and in a position to understand the available scientific data," recounts an **essay on corporate responsibility for climate change published last month** in the peer-reviewed journal Climatic Change.

"From 1989 to 2002, the GCC led an aggressive lobbying and advertising campaign aimed at achieving these goals by sowing doubt about the integrity of the IPCC and the scientific evidence that heat-trapping emissions from burning fossil fuels drive global warming," says the article, by Harvard climate science historian Naomi Oreskes and two co-authors.

Exxon's Uncertainty Campaign in Black and White

As part of Exxon's campaign to sow doubt about global warming, the oil giant ran a series of newspaper advertisements, some of which highlighted the uncertainty of climate science.

July 25, 1996

With climate change, what we don't know can hurt us

It has been said climate is what we expect; weather is what we get. Weather is capricious and chaotic. By contrast, climate in the 10,000 years since the last Ice Age has been assumed to be quite stable and serene, an assumption that is crumbling in the face of ever more sophisticated measurements. It now appears that the climate in this period has actually been quite volatile, changing Earth in ways that may dwarf the impact of human activity and complicate predicting climate trends. Nevertheless, the human

nical, social and economic information."

There is great pressure to assign responsibility for the stabilization and reduction of emissions, along with the cost, almost entirely to the industrialized world. While the developing world would be spared the initial burden, such selective controls would penalize all nations in the long run.

Imposing controls only on the industrialized world would likely cause what economists call "carbon leakage"—the transfer of energy-intensive industries to less-regulated countries, where they would offset the benefits of emission reductions.

March 23, 2000

Unsettled Science

Knowing that weather forecasts are reliable for a few days at best, we should recognize the enormous challenge facing scientists seeking to predict climate change and its impact over the next century. In spite of everyone's desire for clear answers, it is not surprising that fundamental gaps in knowledge leave scientists unable to make reliable predictions about future changes.

A recent report from the National Research Council (NRC) raises important issues, including these still-unanswered questions: (1) Has human activity already begun to change temperature and the climate, and (2) How significant a future change be?

The NRC report confirms that Earth's surface temperature has risen by about 1 degree Fahrenheit over the past 150 years. Some use this result to claim that humans are causing global warming, and they point to recent storms or floods to say that dangerous impacts are already under way. Yet scientists remain unable to confirm either contention.

Geological evidence indicates that climate and greenhouse gas levels experience significant natural variability for reasons having nothing to do with human activity. Historical records and independent scientific evidence show that Europe and

Moreover, computer models relied upon by climate scientists predict that lower atmospheric temperatures will rise as fast as or faster than temperatures at the surface. However, only within the last 20 years have reliable global measurements of temperatures in the lower atmosphere been available through the use of satellite technology. These measurements show little if any warming.

Even less is known about the potential positive or negative impacts of climate change. In fact, many academic studies and field experiments have demonstrated that increased levels of carbon dioxide can promote crop and forest growth.

So, while some argue that the science debate is settled and governments should focus only on near-term policies—that is empty rhetoric. Inevitably, future scientific research will help us understand how human actions and natural climate change may affect the world and will help determine what actions may be desirable to address the long-term.

Science has given us enough information to know that climate changes may pose long-term risks. Natural variability and human activity may lead to climate change that could be significant and perhaps both positive and negative. Consequently, people,

Sargasso Sea Temperature

Dec. 4, 1997

Climate change: a degree of uncertainty

The debate on climate change has been long, complex and intense. Governments, corporations, scientists, economists and private citizens have all helped to frame this debate. Today, we respectfully submit our message to the officials who are gathered in Kyoto to consider actions to reduce emissions of carbon dioxide and other greenhouse gases.

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Fossil fuels dominate the world's energy picture today. For at least several decades, they will continue to be the major source of the world's energy [illegible] and the private sector [illegible] array of technol[illegible] our emission of[illegible]

The missi[illegible] conference [illegible]

■ Governments should encourage and accelerate cooperative research on climate change while harnessing free markets and voluntary measures to deliver optimum emission reductions while preserving sustained economic growth.

■ To address the scientific uncertainty, governments, universities and industry should form global research partnerships to fill in the knowledge gap, with the goal of achieving a consensus view on critical issues within a defined time frame.

■ During the fact-finding period, governments should encourage and promote voluntary actions by industry and citizens that reduce emissions and use energy wisely. Governments can do much to raise public awareness of the importance of energy conservation.

Mobil is already participating in such efforts. Through cooperative endeavors, we are [illegible] research on technologies that promise [illegible] greenhouse [illegible]

Do No Harm

Just as changes[illegible]

July 18, 1996

Less heat, more light on climate change

No longer just talking about the weather, many governments are grappling with the possibility that human activities are enhancing nature's greenhouse effect, which might trigger significant changes in the global climate. Under the United Nations Framework Convention on Climate Change, countries are pressing for the stabilization, and eventual reduction, of man-made greenhouse-gas emissions. Nations are gathered this month in Geneva for the Second Conference of Parties meeting. Negotiations will culminate late next year and could result in legally binding [illegible] timetables and common measures to

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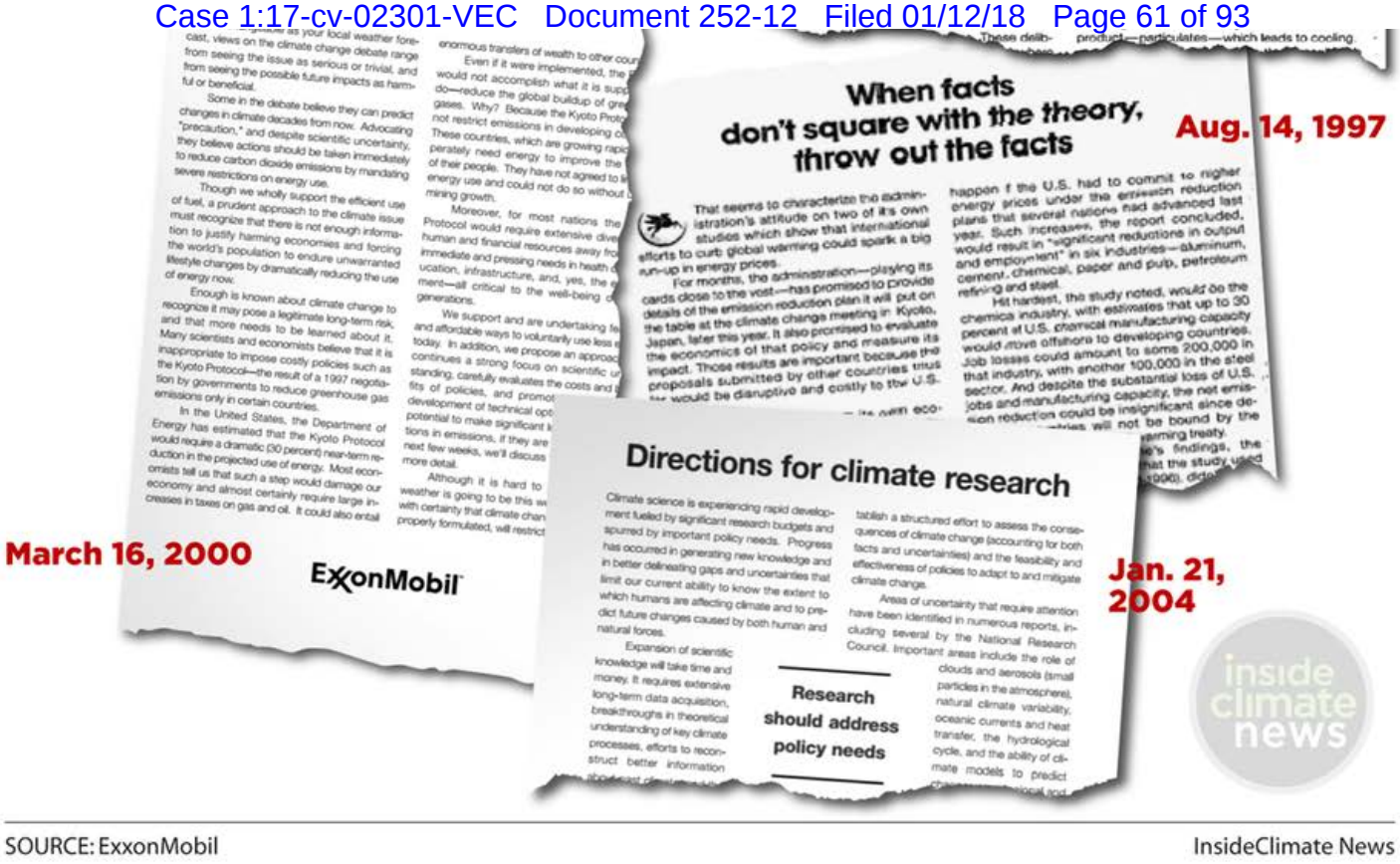

SOURCE: ExxonMobil InsideClimate News

Then, in 1998 Exxon also helped create the Global Climate Science Team, an effort involving Randy Randol, the company's top lobbyist, and Joe Walker, a public relations representative for API.

Their memo, leaked to The New York Times, asserted that it is "not known for sure whether (a) climate change actually is occurring, or (b) if it is, whether humans really have any influence on it." Opponents of the Kyoto treaty, it complained, "have done little to build a case against precipitous action on climate change based on the scientific uncertainty."

The memo declared: "Victory will be achieved when average citizens 'understand' (recognize) uncertainties in climate science," and when "recognition of uncertainty becomes part of the 'conventional wisdom.'"

Exxon wholeheartedly embraced that theme. For example, an advertisement called "Unsettled Science" that ran in major papers in the spring of 2000, prompted one scientist to complain that it had distorted his work by suggesting it supported the notion that global warming was just a natural cycle. "It's a shame," Lloyd Keigwin later told the Wall Street Journal. "The implication is that these data show that we don't need to worry about global warming."

Another ad, one of a series placed in The New York Times, cast aspersions on scientists who "believe they can predict changes in climate decades from now."

Then, in the heat of the 2000 presidential race between climate champion Al Gore and erstwhile oilman George W. Bush, Exxon placed an ad in the Washington Post accusing MacCracken's office of putting the "political cart before a scientific horse."

Blowing the Whistle

The collaboration between Exxon, its surrogates, **and the Bush administration** to emphasize uncertainty and stave off action came to light in 2005. A **whistleblower named Rick Piltz** disclosed that Philip Cooney, an oil lobbyist who had become chief of staff at the White House environmental council, had been heavily editing the work of government researchers. Cooney resigned, and was hired by Exxon.

But the clashes continued between the scientific establishment and Exxon's purveyors of uncertainty.

The Royal Society of the United Kingdom, for centuries a renowned arbiter of science, harshly criticized Exxon in 2006 for publishing "very misleading" statements about the IPCC's Third Assessment Report. The IPCC found that most of the observed warming of the planet in the late 20th century was probably caused by humans.

The Society's communications manager Bob Ward reminded Exxon pointedly that one of its own scientists had contributed to the IPCC chapter in question.

The Royal Society said it had no problem with Exxon funding scientific research, but "we do have concerns about ExxonMobil's funding of lobby groups that seek to misrepresent the scientific evidence relating to climate change."

Ward said Exxon **was funding at least 39 organizations** "featuring information on their websites that misrepresented the science on climate change, by outright denial of the evidence that greenhouse gases are driving climate change, or by overstating the amount and significance of uncertainty in knowledge."

Appendix B

Groups and Individuals Associated with ExxonMobil's Disinformation Campaign

Table 1 **Select ExxonMobil-Funded Organizations Providing Disinformation on Global Warming**[174]

Organization	Total ExxonMobil Funding[175] (1998–2005)	Illustrative Information
Africa Fighting Malaria	$30,000	AFM received $30,000 donation in 2004 for "climate change outreach." This grant represents 10% of their total expenses for that year. AFM's website has an extensive collection of articles and commentary that argue against urgent action on climate change.[176]
American Council for Capital Formation, Center for Policy Research	$1,604,523	One-third of the total ExxonMobil grants to ACCF-CPR between 1998 and 2005 were specifically designated for climate change activities. ExxonMobil funds represent approximately 36% of their total expenses in 2005.[177]
American Council on Science and Health	$125,000	ExxonMobil donated $15,000 to ACSH in 2004 for "climate change issues." A September 2006 Better Business Bureau Wise Giving Alliance Charity Report concludes that the ACSH does not meet all the standards for charity accountability.[178]
American Enterprise Institute	$1,625,000	Lee R. Raymond, retired chair and CEO of ExxonMobil, is vice chairman of AEI's Board of Trustees.[179]
American Friends of the Institute of Economic Affairs	$50,000	American Friends of the IEA received a $50,000 ExxonMobil donation in 2004 for "climate change issues." This grant represents 29% of their total expenses for that year. The 2004 IEA study, *Climate Alarmism Reconsidered,* "demonstrates how the balance of evidence supports a benign, enhanced greenhouse effect."[180]
American Legislative Exchange Council	$1,111,700	Of the total ExxonMobil grants to ALEC, $327,000 was specifically for climate change projects. ALEC received $241,500 in 2005 from ExxonMobil.

In 2007, the Union of Concerned Scientists published a report detailing Exxon's campaign of uncertainty, including a table identifying dozens of organizations that the group said had received $16 million in Exxon contributions over several years. (Credit: Union of Concerned Scientists)

Exxon's uncertainty campaign was detailed in three exhaustive reports published in 2007 by the Union of Concerned Scientists and the Government Accountability Project.

James McCarthy (Credit: Kris Snibbe/Harvard Staff Photographer)

At a **Congressional hearing in 2007**, Harvard scientist James McCarthy, who was a member of the UCS board and the newly elected president of the American Association for the Advancement of Science, declared: "The Bush administration and a network of Exxon-funded, ExxonMobil funded organizations have sought to distort, manipulate and suppress climate science so as to confuse the American public about the urgency of the global warming problem, and thus, forestall a strong policy response."

To this day, top Exxon officials sometimes argue that models are no basis for policy.

While Rex Tillerson, the current chairman, doesn't echo Lee Raymond's science denial **in his formal speeches**, he sometimes backslides when speaking off the cuff.

At Exxon's annual meeting in 2015, Tillerson said it would be best to wait for more solid science before acting on climate change. "What if everything we do, it turns out our models are lousy, and we don't get the effects we predict?" he asked.

And in its formal annual energy forecasts, as well as in its latest report on the implications of its carbon footprint, Exxon adopts business-as-usual assumptions. It deflects the question of how much carbon will build up in the world's atmosphere over the next few decades, or how much the planet will warm as a result.

"As part of our energy outlook process, we do not project overall atmospheric GHG [greenhouse gas] concentration, nor do we model global average temperature impacts," both reports say.

In footnotes, Exxon offers this excuse: "These would require data inputs that are well beyond our company's ability to reasonably measure or verify."

*Click **here for Part 1**, an overview of Exxon's history with climate change; **Part II**, an accounting of Exxon's early climate research; **Part III**, a review of Exxon's climate modeling efforts; **Part IV**, a dive into Exxon's Natuna gas field project; **Part V**, a look at Exxon's push for synfuels.*

ICN staff members Neela Banerjee, Lisa Song, Zahra Hirji, and Paul Horn also contributed to this report.

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EXXON: THE ROAD NOT TAKEN
BUSINESS AND ACCOUNTABILITY, CLIMATE DENIAL
EXXON CLIMATE, CLIMATE CHANGE, CLIMATE DENIAL

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Exhibit S34

Rockefellers: Not Only Did We Pay for #ExxonKnew, We Were the Ones Who Pulled in NY AG

2:02pm EST December 7, 2016

by Katie Brown, PhD
katie@energyindepth.org, Washington, D.C.

The Rockefellers directly lobbied New York Attorney General Eric Schneiderman and other state officials to launch a climate investigation into ExxonMobil, raising more questions about the role that the funders of the #ExxonKnew stories played in creating the campaign. In a column published by the *New York Review of Books*, David Kaiser and Lee Wasserman of the Rockefeller Family Fund (RFF) wrote:

> "It is up to government officials, not public interest advocates, to determine whether ExxonMobil's conduct has violated any state or federal laws within the relevant statutes of limitations. **Recognizing this, the Rockefeller Family Fund (RFF) informed state attorneys general of our concern** that ExxonMobil seemed to have failed to disclose to investors the business risks of climate change. We were particularly encouraged by Schneiderman's interest in this matter, because New York's Martin Act is arguably the most powerful tool in the nation for investigating possible schemes to defraud." (emphasis added)

In a November 21 article, Kaiser told the *New York Times* that the Rockefellers had petitioned the government for this investigation, although he did not explicitly say at that point that it was Schneiderman who was approached.

> "And we have **exercised our right to petition the government for redress of grievances** by informing elected officials about our concerns that in the course of its climate science campaign, Exxon may have violated the law. All of those rights are explicitly guaranteed to us by the First Amendment." (emphasis added)

Additionally, Kaiser and Valerie Rockefeller Wayne of the Rockefeller Brothers Fund (RBF) appeared on national TV last week to admit that they were the ones bankrolling the entire #ExxonKnew campaign, including the "news" outlets that have repeatedly disavowed any improper influence from the Rockefellers. As CBS This Morning with Charlie Rose reported, "The charities [the Rockefellers] run funded investigations that appeared in the Los Angeles Times and InsideClimate News."

Is this why Schneiderman and Massachusetts Attorney General Maura Healey have been aggressively fighting Freedom of Information Act requests and a federal judge's discovery order, all of which may show that they have been operating under "bias or prejudgment" to conduct "bad faith" political investigations?

As the *Washington Post* reported when the discovery order was first issued, this "could open the door for an intrusive examination of Maura Healey's internal phone records, other communications and depositions." In other words, whatever communications the Rockefellers had with the AGs – including their direct lobbying to advance the #ExxonKnew political campaign – may soon be out in the open for everyone to see.

The recent admissions by the Rockefellers may be an attempt to blunt the impact of the scandal and reveal their collusion on their own terms, although that may not help Schneiderman or Healey, who suddenly find themselves in serious legal trouble.

Schneiderman, the New York Attorney General, has recently come under scrutiny for working closely with wealthy donors. Emails show that Schneiderman may have used his investigation of ExxonMobil as a hook to secure campaign funding from billionaire environmental activist Tom Steyer for his upcoming run for governor. Schneiderman actually called Steyer to discuss "support for his race for governor…regarding Exxon case," according to one of the emails.

The timeline of #ExxonKnew events has also become more interesting. Schneiderman announced his investigation last year on November 4th and said that it had been going on for roughly a year. A FOIA'd email written by Peter Frumhoff of the Union of Concerned Scientists (UCS) – one of the activists who briefed the AGs ahead of their March 29th press conference with Al Gore – shows that

contact had already been made with the AGs long before the InsideClimate News and Columbia School of Journalism hit pieces were published. As Frumhoff put it in a July 21, 2015 email, "we think there'll likely be a strong basis for encouraging state (e.g. AG) action forward, and in that context, opportunities for climate scientists to weigh in."

These new revelations show that it may not have been the activists, but the Rockefellers themselves, who got that ball rolling on #ExxonKnew last summer.

Schneiderman announced his investigation once the Rockefeller-funded hit pieces were out, providing him with the cover necessary to justify his witch hunt.

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Exhibit S35

The Rockefeller Family Fund Takes on ExxonMobil

David Kaiser and Lee Wasserman

DECEMBER 22, 2016 ISSUE

Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming
by Naomi Oreskes and Erik M. Conway
Bloomsbury, 355 pp., $18.00 (paper)

Private Empire: ExxonMobil and American Power
by Steve Coll
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Exxon: The Road Not Taken
by Neela Banerjee, John H. Cushman Jr., David Hasemyer, and Lisa Song
InsideClimate News, 88 pp., $5.99 (paper)

What Exxon Knew About the Earth's Melting Arctic
an article by Sara Jerving, Katie Jennings, Masako Melissa Hirsch, and Susanne Rust
Los Angeles Times, October 9, 2015

How Exxon Went from Leader to Skeptic on Climate Change Research
an article by Katie Jennings, Dino Grandoni, and Susanne Rust
Los Angeles Times, October 23, 2015

Big Oil Braced for Global Warming While It Fought Regulations
an article by Amy Lieberman and Susanne Rust
Los Angeles Times, December 31, 2015

Archival Documents on Exxon's Climate History
available at www.climatefiles.com

Smoke, Mirrors and Hot Air: How ExxonMobil Uses Big Tobacco's Tactics to Manufacture Uncertainty on Climate Science
a report by the Union of Concerned Scientists, January 2007
available at ucsusa.org

In the first part of this article, we described recent reporting that ExxonMobil's leaders knew humans were altering the world's climate by burning fossil fuels even while the company was helping to fund and propel the movement denying the reality of climate change.[1] Ever since the *Los Angeles Times* and *InsideClimate News* started publishing articles showing this in late 2015, ExxonMobil has repeatedly accused its critics of "cherry-picking" the evidence, taking its statements out of context, and "giving an incorrect impression about our corporation's approach to climate change."[2] Meanwhile, New York Attorney General Eric Schneiderman is one of several officials who have been investigating whether the company's failures to disclose the business risks of climate change to its shareholders constituted consumer or securities fraud.

Since ExxonMobil claims that it has been misrepresented, we encourage it to make public all the documents Schneiderman has demanded, so that independent researchers can consider all the facts. In the meantime we suggest that anyone who remains unconvinced by the record we have collected and published of the company's internal statements confirming the reality of climate change consider its actions, especially its expenditures. Regardless of its campaign to confuse policymakers and the public, Exxon has always kept a clear eye on scientific reality when making business decisions.

In 1980, for example, Exxon paid $400 million for the

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Ray Monk

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Verlyn Klinkenborg

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David Fratkin

rights to the Natuna natural gas field in the South China Sea. But company scientists soon realized that the field contained unusually high concentrations of carbon dioxide, and concluded in 1984 that extracting its gas would make it "the world's largest point source emitter of CO2 [, which] raises concern for the possible incremental impact of Natuna on the CO2 greenhouse problem." The company left Natuna undeveloped. Exxon's John Woodward, who wrote an internal report on the field in 1981, told *InsideClimate News*, "They were being farsighted. They weren't sure when CO2 controls would be required and how it would affect the economics of the project."[3]

This, of course, was a responsible decision. But it indicates the distance between Exxon's decades of public deception about climate change and its internal findings. So do investments that Exxon and its Canadian subsidiary Imperial Oil made in the Arctic. As Ken Croasdale, a senior ice researcher at Imperial, told an engineering conference in 1991, concentrations of greenhouse gases in the atmosphere were increasing "due to the burning of fossil fuels. Nobody disputes this fact." Accordingly,

> any major development with a life span of say 30–40 years will need to assess the impacts of potential global warming. This is particularly true of Arctic and offshore projects in Canada, where warming will clearly affect sea ice, icebergs, permafrost and sea levels.

Croasdale based these projections on the same climate models that Exxon's leaders spent the next fifteen years publicly disparaging. But following his warnings that rising seas would threaten buildings on the coast, bigger waves would threaten offshore drilling platforms, and thawing permafrost would threaten pipelines, Exxon began reinforcing its Arctic infrastructure.[4]

Similarly, as Steve Coll[5] wrote in *Private Empire:*

Christmas in July
Christopher Benfey

Cattle King President
Mark Gevisser

If Trump Fires Mueller…
Yascha Mounk

ExxonMobil and American Power (2012), the company's

> investments in skeptics of the scientific consensus coincided with what at least a few of ExxonMobil's own managers regarded as a hypocritical drive inside the corporation to explore whether climate change might offer new opportunities for oil exploration and profit.

The company tried to use the work of one of its most celebrated earth scientists, Peter Vail, to predict how alterations to the planet's surface made by the changing climate could help it discover new deposits of oil and gas. "'So don't believe for a minute that ExxonMobil doesn't think climate change is real,' said a former manager…. 'They were using climate change as a source of insight into exploration.'"[6]

Soon after Rex Tillerson replaced Lee Raymond as CEO at the start of 2006, he created a secret task force to reconsider the company's approach to climate change —"so that it would be more sustainable and less exposed," according to one participant.[7] Tillerson may have been afraid that the company's aggressive denial campaign had made it vulnerable to lawsuits.[8]

Under his leadership, as Coll has shown, the company gradually began to change its public position on climate. In 2006 its British subsidiary promised the UK's Royal Society it would stop funding organizations that were misinforming the public about climate science.[9] In 2007 Tillerson stated, "We know the climate is changing, the average temperature of the earth is rising, and greenhouse gas emissions are increasing." (That was more than Raymond had ever admitted, but Tillerson still wouldn't acknowledge that fossil fuel combustion caused global warming)[10] In January 2009—twelve days before President Obama's inauguration would situate the company in much less

welcoming political territory—Tillerson announced that ExxonMobil had become concerned enough about climate change to support a carbon tax.[11]

The climate measure then under active discussion in Washington, however, was a cap-and-trade bill. There was almost no political support for a carbon tax at the time, and Tillerson's announcement may have been meant to divert support from the reform that seemed most plausible.[12] Indeed, since then, although ExxonMobil continues to claim that it supports a carbon tax, it has given much more money to members of Congress who oppose such a tax than to those who endorse one.[13] As of last year it was still funding organizations that deny global warming or fight policies proposed to address it.[14] And at its annual shareholder meetings it still fiercely resists almost all meaningful resolutions on climate change.[15]

The Securities and Exchange Commission requires companies to disclose known business risks to their investors, and Exxon's leaders have been acutely conscious of the changing climate's danger to the oil business for almost forty years. The company didn't start telling its shareholders about that danger until 2007,[16] however, and in our opinion has never disclosed its full scope. To take just one very important example, the valuation of any oil company depends largely on its "booked reserves," meaning the quantities of buried oil and gas to which it owns the rights.[17] Ultimately, however, ExxonMobil may not be able to sell most of its booked reserves, because the world's governments, in trying to prevent catastrophic climate change, may have to adopt policies that make exploiting them economically unfeasible.

In 2013 the Intergovernmental Panel on Climate Change (IPCC) formally endorsed the idea of a global "carbon budget," estimating that, to keep warming to the two degrees Celsius then considered the largest increase possible without incurring catastrophe, humanity could only burn about 269 billion more tons

[18]

of fossil fuels. (We are currently burning about ten billion tons a year.)[19] As of 2009, however, the world had 763 billion tons of proven and economically recoverable fossil fuel reserves.[20]

If ExxonMobil can sell only a fraction of its booked reserves—if those reserves are "stranded"—then its share price will probably decline substantially. The company has long been familiar with the concept of a carbon budget, but claims to believe it is "highly unlikely" that the world will be able to comply with the IPCC's recommendation for such a budget. In 2014 it stated, "We are confident that none of our hydrocarbon reserves are now or will become 'stranded.'"[21] Because it is a matter of the highest urgency that humanity find a way to adopt the IPCC's global carbon budget, however, it seems to us that ExxonMobil has been much too sanguine about its business prospects.[22] As a *Baltimore Sun* editorial about the company's long history of climate deceptions put it, "Surely there ought to be consequences if a for-profit company knowingly tells shareholders patent falsehoods (and then those investors make decisions about their life savings without realizing they've been lied to)."[23]

It is up to government officials, not public interest advocates, to determine whether ExxonMobil's conduct has violated any state or federal laws within the relevant statutes of limitations. Recognizing this, the Rockefeller Family Fund (RFF) informed state attorneys general of our concern that ExxonMobil seemed to have failed to disclose to investors the business risks of climate change. We were particularly encouraged by Schneiderman's interest in this matter, because New York's Martin Act is arguably the most powerful tool in the nation for investigating possible schemes to defraud.[24] If ExxonMobil fully complies with Schneiderman's subpoena, he will be able to make a thorough review of the company's disclosures to shareholders on climate change and the history of its internal knowledge. He will then be able to decide whether or not to hold ExxonMobil legally responsible based on all the facts.

No state AG's office can easily compete with ExxonMobil's legal resources, however, not even New York's. Schneiderman has been intrepid so far, but would benefit greatly from cooperation from the AGs of Massachusetts, California, and other states, as well as from the federal government. ExxonMobil has already launched aggressive legal actions against the Virgin Islands, Massachusetts, and New York in response to their investigations, and this may deter others from joining Schneiderman's efforts.[25] Still, we hope that other AGs will recognize how dangerous it is when a corporation can use its wealth to discourage enforcement of possible violations of laws governing securities and consumer protection. If they believe the laws of their states may have been violated, they should initiate investigations of their own.

The RFF has also consulted with other advocates about ways to use what we know about ExxonMobil to educate the public about climate change.[26] The company's suggestion that our communications with governmental officials and like-minded public interest advocates constitutes "conspiracy," however, is absurd, ignoring the long record American civic associations have of addressing deep societal problems by use of the First Amendment.

ExxonMobil's success in forestalling any sort of adequate response to climate change for a quarter-century makes it imperative that Congress address this swiftly descending crisis now with all possible force and urgency. If the companies that bear so much responsibility for blocking climate action have broken any laws in the process, we hope they will be held accountable. We also hope, secondarily, to make it difficult for elected officials to accept ExxonMobil's money and do its bidding.

Texas Congressman Lamar Smith has taken more money in campaign contributions from oil and gas companies, including ExxonMobil, than from any other industry during his congressional career.[27] It is not hard

to see why companies intent on blocking new climate policies are eager to support him. Last year, for example, the National Oceanic and Atmospheric Administration published an article in *Science* refuting the already discredited canard that climate data show no warming over the past two decades.[28] In response Smith issued a subpoena to the agency, demanding all its internal e-mails about climate research. An article in *US News and World Report* observed that Smith's "brand of oversight may signal a new era for science, one where research itself is subject to political polarization."[29] According to Eddie Bernice Johnson, the ranking minority member of the House Science Committee, Smith has repeatedly called former tobacco industry scientists, consultants, and public relations firms to testify at his committee's hearings, and has relied on their guidance in previous investigations.[30] *Wired* last year called him "Congress' Chief Climate Denier."[31]

Recently, Smith has accused several AGs and environmental organizations, including the Rockefeller Family Fund, of "undermin[ing] the First Amendment of the Constitution." He has told us at the RFF that "Congress has a duty to protect scientists and researchers from the criminalization of scientific inquiry" and "a responsibility to investigate whether [the state inquiries into ExxonMobil] are having a chilling effect on the free flow of scientific inquiry and debate regarding climate change."[32] As the dean of the Yale Law School wrote in *The Washington Post*, "It is hard to exaggerate the brazen audacity of this argument."[33] Johnson wrote to Smith that "in a Congress in which the Committee on Science, Space, and Technology's oversight powers have been repeatedly abused, this latest action stands apart…. Never in the history of this formerly esteemed Committee has oversight been carried out with such open disregard for truth, fairness, and the rule of law."[34] The *San Antonio Express-News*, Smith's hometown paper, which had previously endorsed his bids for reelection, declined to do so this year because

of his "abuse of his position as chairman" and his "bullying on the issue of climate change."[35]

Congressional committees have very limited jurisdiction over state law enforcement officers engaged in the good-faith execution of their duties, and never before has Congress subpoenaed a state attorney general.[36] The AGs investigating ExxonMobil are trying to determine whether the company has defrauded shareholders according to the laws of their states.[37] Fraud, of course, is not protected by the First Amendment, and since the AGs are responsible for prosecuting fraud, they must be free to investigate it.

As for the nonprofit organizations the Science Committee has subpoenaed, including our own, it is obviously not within our power to violate anyone's First Amendment rights. The Supreme Court has called it "a commonplace that the constitutional guarantee of free speech is a guarantee only against abridgment by government, federal or state."[38] That aside, we have no wish to silence anyone, or to interfere with free scientific inquiry. For the best ideas to prevail, however, people must be allowed to point out instances of inaccurate or dishonest speech. And indeed, by calling attention to the deep, largely orchestrated dishonesty that has characterized the climate denial movement ever since its inception, we are supporting genuine scientific inquiry.

We have tried to reach a reasonable accommodation with the Science Committee. But we do wish to criticize ExxonMobil on moral grounds for its long effort to confuse and deceive the public about climate change. Moreover, we believe that the willingness of some members of Congress to echo and defend ExxonMobil's obfuscation of established climate science is an inexcusable breach of the public trust. It is our First Amendment right to express these views.

In fact, the Science Committee is doing to the people and organizations it subpoenaed exactly what it accuses us of doing. It is trying to chill the First Amendment

rights of those who would petition government, speak freely, and freely associate to advocate for responsible climate policies.[39] The legal fees we have incurred because of its demands are bearable for the RFF, but they would be crippling for many smaller organizations. We also face civil or criminal liability if we are held in contempt of Congress because we will not accede to these demands.

More seriously, the committee's actions now force all organizations that would collaborate with others when taking on powerful special interests to consider that they might be ordered to reveal their strategies to any hostile member of Congress with subpoena power. This is a clear injury to the First Amendment right of association. As the Ninth Circuit wrote in *Perry* v. *Schwarzenegger* (2010):

> Implicit in the right to associate with others to advance one's shared political beliefs is the right to exchange ideas and formulate strategy and messages, and to do so in private. Compelling disclosure of internal campaign communications can chill the exercise of these rights.[40]

Many commentators have noted that the committee is doing the same things to us that it falsely accuses us of doing.[41] By accusing us of harming the First Amendment rights of others when it is attacking ours, it is trying to turn what would otherwise be self-evidently outrageous conduct into a dispute. This is not so different from ExxonMobil's politicized variant of the "Tobacco Strategy"—people will be tempted simply to take the side with which they sympathize ideologically. Meanwhile, the committee is creating a distraction from the real issues, which are what Exxon knew, and when; what it did with its knowledge; and what options humanity has left to prevent the worst consequences of climate change.

Thousands of scientists from around the world contribute to the Intergovernmental Panel on Climate Change's reports, reviewing and synthesizing the published literature on climate science every few years. The summaries for policymakers that encapsulate those reports must then be considered and approved, line by line, by representatives of over 120 different countries.[42] Because of the remarkable number of scientists participating in the IPCC's work, it is generally considered the world's greatest institutional authority on climate science.[43] But because it requires the approval of so many nations, including oil producers like Saudi Arabia and Kuwait, and because it is subject to political manipulation, as happened when ExxonMobil convinced the Bush administration to have its chairman replaced in 2001,[44] the IPCC's conclusions are generally considered quite conservative.[45]

Still, the predictions of the IPCC's latest report, published last year, are dire.[46] In this century, disastrous weather events such as storms, droughts, floods, fires, and heat waves will become more common and more severe. Changes to regional weather will have especially serious consequences in places that are already poor, as areas that are semiarid now, for example, become too dry to farm at all. Low-lying islands and coastal cities around the world will be threatened by rising sea levels. In many parts of the world, both the quantity and the quality of fresh water will decline.

For a time, some places will see agricultural productivity increase as the planet warms and rainfall distribution shifts; but others will face shortages of food and the possibility of famine. Globally, total agricultural output is expected to be lower at the end of the century than it is now. The challenge of feeding the world's people will be exacerbated by declining fisheries as the oceans warm and turn more acidic. Many plant and animal species will become extinct as climatic changes outpace their ability to adapt, others will migrate to new regions, and all of this will have

cascading effects on most ecosystems. (For example, the combination of much larger wildfires than we are used to seeing and invasive beetle species may endanger the world's boreal forests—and if they disappear, they will release vast additional quantities of carbon dioxide into the atmosphere.) Old diseases will spread and new ones emerge.

These different effects of climate change will interact with each other in complex ways, some of which may not be predictable now. It seems clear, however, that the poorest parts of the world will become poorer still, and economies everywhere will be threatened. (A 1980 American Petroleum Institute meeting in which Exxon participated concluded that at a "3% per annum growth rate of CO2, a 2.5° C rise [in average global temperature] brings world economic growth to a halt in about 2025.")[47] Conflict over dwindling resources will increase around the world; so, dramatically, will human migration and political instability.

As a group of retired American generals and admirals who studied the national security implications of climate change concluded in 2007:

> Economic and environmental conditions in already fragile areas will further erode as food production declines, diseases increase, clean water becomes increasingly scarce, and large populations move in search of resources. Weakened and failing governments, with an already thin margin for survival, foster the conditions for internal conflicts, extremism, and movement toward increased authoritarianism and radical ideologies.

It is true that scientists still disagree about precisely how severe the effects of climate change will be, and when. But, the generals and admirals wrote, "As military leaders, we know we cannot wait for certainty. Failing to act because a warning isn't precise enough is

unacceptable."[48]

The world's governments should have acted decades ago. When the Exxon scientist James Black wrote in 1978 that "the need for hard decisions regarding changes in energy strategies might become critical" in "five to ten years," he was right.[49] That was humanity's best chance to start making the transition to a clean energy economy before so much CO2 was released into the atmosphere that a great deal of warming became unavoidable. In our opinion, the reason the world has failed to act for so long is in no small part because the climate denial campaign that Exxon helped devise and lead was so successful.

Just as the tobacco industry gained decades of huge profits by obfuscating the dangers of smoking, the oil industry secured decades of profits—in Exxon's case, some of the largest profits of any corporation in history—by helping to create a fake controversy over climate science that deceived and victimized many policymakers, as well as much of the public. The bogus science it paid for through front groups, which was then repeated and validated by industry-funded, right-wing think tanks and a too-easily cowed press, worked just as well for ExxonMobil as it had for R.J. Reynolds. A 2004 study by Naomi Oreskes in *Science* examined 928 peer-reviewed papers on climate science and found that not a single one disputed global warming's existence or its human cause.[50] But according to a recent Yale University study, only 11 percent of Americans understand that there is a scientific consensus on these points.[51]

The climate deniers succeeded in politicizing a formerly nonpartisan issue and a threat to all humanity.[52] In consequence, for decades now, meaningful congressional action to address climate change has been impossible. Without the agreement and leadership of the United States, the world's largest cumulative emitter of CO2, it has been impossible to achieve a meaningful global accord on climate change. The

recently completed Paris agreement on climate, for which the Obama administration fought, will be effective—but only if the world's nations live up to the commitments they made in it. Although, as a result in part of the actions of ExxonMobil, we have already missed our best chance to prevent a reordering of the world's ecological balance due to climate change, we can still avoid its worst effects. There is an enormous difference between the new, local disasters that the changing climate is already causing around the world[53] and the global catastrophe that will become unavoidable within a few decades unless humanity takes decisive action soon.

—This is the second part of a two-part article.

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1 See "The Rockefeller Family Fund vs. Exxon," *The New York Review*, December 8, 2016.

2 See Understanding the #ExxonKnew "controversy"; Paul Barrett and Matthew Philips, "Can ExxonMobil Be Found Liable for Misleading the Public on Climate Change?," *Bloomberg Businessweek*, September 7, 2016. The company has argued, among other things, that it is unfair to expect that it could have understood the reality of climate change before the rest of the world's scientific community. So it would be, if anyone expected that. But by the late 1970s there was a scientific consensus that the earth would begin to warm appreciably within the next few decades because of the carbon dioxide released by fossil fuel combustion and by deforestation. Exxon understood and agreed with this scientific consensus as it emerged. It doesn't seem to have begun seriously trying to create doubt about climate science until the late 1980s.

3 See Neela Banerjee and Lisa Song, "Exxon's Business Ambition Collided with Climate Change Under a Distant Sea," *InsideClimate News*, October 8, 2015; www.offshore-technology.com/projects/Natuna/.

4 See Sara Jerving, Katie Jennings, Masako Melissa Hirsch, and Susanne Rust, "What Exxon Knew About the Earth's Melting Arctic," *Los Angeles Times*, October 9, 2015. Other big oil companies like Mobil (before it merged with Exxon) and Shell, which also opposed policies meant to reduce the impact of climate change, were similarly "raising the decks of offshore platforms, protecting pipelines from increasing coastal erosion, and designing helipads, pipelines and roads [for] a warming and buckling Arctic." See Amy Lieberman and Susanne Rust, "Big Oil Braced for Global Warming While It Fought Regulations," *Los Angeles Times*, December 31, 2015. We have focused on Exxon in these articles partly because more is known about its record on climate, and partly because it was more aggressive than its competitors in promoting the denial campaign. See Steve Coll, *Private Empire: ExxonMobil and American Power* (Penguin, 2012), pp. 185, 541, 623–624.

5 Coll is now the dean of Columbia University's Graduate School of Journalism. As we explained in the first of these articles, it was a team of

independent reporters from the Journalism School that published the articles about Exxon in the *Los Angeles Times*, and our organization, the Rockefeller Family Fund, was the leading funder of this effort.

6 Coll, *Private Empire*, pp. 185–186.

7 Coll, *Private Empire*, p. 336.

8 Coll writes, "What distinguished the corporation's activity during the late 1990s and the first Bush term was the way it crossed into disinformation. Even within ExxonMobil's K Street office, a haven of lifelong employees devoted to the corporation's viewpoints and principles, an uneasy recognition gathered among some of the corporation's lobbyists that some of the climate policy hackers in the ExxonMobil network were out of control and might do shareholders real damage, in ways comparable to the fate of tobacco companies." (*Private Empire*, p. 184.)

9 See 2006 Letter From the Royal Society to Esso UK Limited. In 2007, ExxonMobil also told a group of American environmentalists that it had decided to stop funding the "most controversial" climate denial organizations. (See Coll, *Private Empire*, pp. 343–346.)

10 See Coll, *Private Empire*, p. 347.

11 See Coll, *Private Empire*, pp. 534–535.

12 See Coll, *Private Empire*, pp. 534–541. Cap-and-trade is a market-based mechanism designed to reduce pollution, in this case greenhouse gases. The Waxman-Markey Bill passed by the US House of Representatives in 2009 set a "cap" that established the total amount of allowable greenhouse gas emissions from certain industries. The cap declined over time until emissions would have been reduced by 80 percent in 2050 from 2005 levels. Under the bill, permits to emit carbon—which, when added together, comprised the cap—were either auctioned or allocated to the states, to historic polluters (e.g., utilities, refineries, cement plants), or for other public purposes. The bill required emitters to obtain and submit a permit for each ton of pollution they produced. No industry was allocated so many permits that it would not need to purchase additional ones. This was intended to create a clear financial incentive to reduce emissions. As the cap declined and the number of allocated permits shrank, the incentive would become even stronger.

By contrast, under a carbon tax regime there is no cap. Instead, typically, the first importer or producer of fossil-based fuel is assessed a tax based on the carbon content of the fuel. Because coal contains the most carbon, it would be charged at the highest rate, followed by oil and then natural gas. The tax would be passed along to consumers, creating a market signal to reduce consumption of the carbon-based fuels.

13 See Elliott Negin, "ExxonMobil's Latest Campaign to Stymie Federal Climate Action," *The Huffington Post*, August 8, 2016.

14 See Elliott Negin, "ExxonMobil Is Still Funding Climate Science Denier Groups," *The Huffington Post*, July 13, 2016.

15 See Steven Mufson, "Climate Resolutions Fall Short at ExxonMobil's Annual Meeting," *The Washington Post*, May 25, 2016.

16 See Lieberman and Rust, "Big Oil Braced for Global Warming."

17 See Coll, *Private Empire*, pp. 51, 57.

18 See IPCC Report Contains 'Grave' Carbon Budget Message.

19 See World Sets Record For Fossil Fuel Consumption; Avaneesh Pandey, "Climate Change: 10 Billion Tons of Carbon Are Now Being Released

Every Year, The Fastest in 66 Million Years," *International Business Times*, March 22, 2016.

20 See Malte Meinshausen, Nicolai Meinshausen, William Hare, Sarah C. B. Raper, Katja Frieler, Reto Knutti, David J. Frame, and Myles R. Allen, "Greenhouse-Gas Emission Targets for Limiting Global Warming to 2°C," *Nature*, April 30, 2009.

21 See Energy and Carbon — Managing the Risks, pp. 1, 12.

22 We do not know whether or not ExxonMobil was also being disingenuous in its claims about the likelihood of compliance with the IPCC's global carbon budget. It is the sort of question that we hope Schneiderman's investigation will be able to answer.

23 See "Frosh's Temperature Rise," *The Baltimore Sun*, June 1, 2016.

24 The Martin Act is New York State's version of a "blue sky" law, a statute designed to protect the public against the fraudulent sale of securities or other fraudulent schemes. It gives the New York attorney general extremely broad discretion: he may investigate "all deceitful practices contrary to the plain rules of common honesty" and "acts tending to mislead or deceive the public."

The statute does not require that the state prove intent to defraud. Under the Martin Act the attorney general can pursue civil proceedings, which include injunctive relief or restitution, or criminal actions. Prior to commencement of an action the state may subpoena any documents deemed "relevant or material to the inquiry." (See Nina Hart, "Moving at a Glacial Pace: What Can State Attorneys General Do About SEC Inattention to Nondisclosure of Financially Material Risks Arising from Climate Change," Center for Climate Change Law, Columbia Law School, pp. 30–31; Moving at a Glacial Pace: What Can State Attorneys General Do about SEC Inattention to Nondisclosure of Financially Material Risks arising from Climate Change?)

25 See Exxon Fights MASS Investigation; Memorandum of law in Support of Defendant Attorney General Maura Healey's Motion to Dismiss; Plaintiff's Original Petition for Declaratory Relief; Letter to Gregory Hodges, Esq.; Paul Barrett, "Exxon Chooses War in New York's Probe of Climate Change Research," *Bloomberg Businessweek*, October 18, 2016.

26 In January the RFF hosted a meeting of public interest advocates at our office. One of the participants (not affiliated with the RFF) circulated an e-mail suggesting "examples" of possible "common goals" for the group, including "to establish in [the] public's mind that Exxon is a corrupt institution that has pushed humanity (and all creation) toward climate chaos and grave harm," and "to delegitimize them as a political actor." Reporters somehow acquired and wrote about this e-mail (see Amy Harder, Devlin Barrett, and Bradley Olson, "Exxon Fires Back at Climate-Change Probe," *The Wall Street Journal*, April 13, 2016; Alana Goodman, "Memo Shows Secret Coordination Effort Against ExxonMobil by Climate Activists, Rockefeller Fund," *The Washington Free Beacon*, April 14, 2016), and Congressman Lamar Smith has since cited it in his criticism of us. (See Letter, June 17, 2016 to Ms. Faith E. Gay.)

From our perspective, the e-mail contained some rhetorical bravado (though it was never intended for publication, of course), and while we consider Exxon's actions immoral, we have no particular interest in persuading the public that the company is corrupt. Otherwise, however, we don't think the e-mail said or suggested anything that is far from the truth.

27 See Top Industries: Representative John Boehner.

28 Thomas R. Karl, Anthony Arguez, Boyin Huang, Jay H. Lawrimore, James R. McMahon, Matthew J. Menne, Thomas C. Peterson, Russell S. Vose, and Huai-Min Zhang, "Possible Artifacts of Data Biases in the Recent Global Surface Warming Hiatus," *Science*, June 26, 2015.

29 See Alan Neuhauser, "Lamar Smith is Hot and Bothered About Climate Science," *U.S. News and World Report*, November 23, 2015. During the three years of Smith's chairmanship, the Science, Space, and Technology Committee has issued more subpoenas than in the rest of its fifty-four-year history put together.

30 See Letter, June 23, 2016.

31 See Eric Niiler, "Congress' Chief Climate Denier Lamar Smith and NOAA Are at War," *Wired*, November 11, 2015.

32 See Letter to Faith E. Gay, June 17, 2016.

33 See Robert Post, "ExxonMobil Is Abusing the First Amendment," *The Washington Post*, June 24, 2016. Post was referring to the First Amendment argument made by ExxonMobil's allies generically, not specifically to Smith.

34 See Letter, June 23, 2016.

35 See "Lamar Smith's Bully Tactics Cross the Line," *San Antonio Express-News*, October 17, 2016.

36 See www.mass.gov/ago/docs/energy-utilities/exxon/ltr-to-congressman-lamar-smith-7-26-16.pdf. Senator Sheldon Whitehouse of Rhode Island recently wrote that "the constitutional principle of federalism requires 'proper respect' to states' constitutional functions, and what more proper and inherent state function is there than investigation and prosecution of violations of state law? If the committee is obstructing that state function on behalf of a private party, that raises obvious due process evils of government power unleashed under hidden private control." (Sheldon Whitehouse, "Standoff Over a House Panel's Subpoenas Raises Key Issue," *The National Law Journal*, August 29, 2016.)

37 See John Schwartz, "Exxon Mobil Fraud Inquiry Said to Focus More on Future Than Past," *The New York Times*, August 19, 2016.

38 *Hudgens* v. *National Labor Relations Board*, 424 US 507, 513 (1976).

39 We were disturbed to see that in an exchange with our lawyers, Smith cited *Barenblatt* v. *United States* (1959)—a decision that seemed to ratify the infamous witch-hunts of the House Un-American Activities Committee—as precedent and justification for his committee's demand that we turn over our private correspondence. See Letter to Faith E. Gay, June 17, 2016

40 *Perry* v. *Schwarzenegger*, 591 F.3d 1147, 1162–63 (9th Cir. 2010).

41 See, e.g., "House GOP Members Pursue an Objectionable Defense of Fossil Fuels," *Los Angeles Times*, August 4, 2016; Sheldon Whitehouse and Elizabeth Warren, "Big Oil's Master Class in Rigging the System," *The Washington Post*, August 9, 2016; Letter to Chairman Smith, September 12, 2016.

42 The IPCC is a body of the United Nations. Any country that is a member of one of two other UN bodies, the World Meteorological Organization and the United Nations Environmental Program, is eligible to participate in the IPCC.

43 See Naomi Oreskes and Erik Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (Bloomsbury, 2010), p. 2.

44 See ExxonMobil Lobbyist Randy Randol 2001 Memorandum to White House on IPCC team; David Hasemyer and John H. Cushman Jr., "Exxon Sowed Doubt About Climate Science for Decades by Stressing Uncertainty," *InsideClimate News*, October 22, 2015; Greenpeace, "Denial and Deception: A Chronicle of ExxonMobil's Efforts to Corrupt the Debate on Global Warming," May 12, 2002, p. 14.

45 Oreskes and Conway, *Merchants of Doubt*, pp. 204, 206–207.

46 Intergovernmental Panel on Climate Change, *Climate Change 2014: Synthesis Report*, edited by the Core Writing Team, Rajendra K. Pachauri, and Leo Meyer (IPCC, 2015). See especially pp. 56–73. Climate Change 2014: Synthesis Report.

47 See CO2 and Climate Task Force.

48 *National Security and the Threat of Climate Change* (The CNA Corporation, 2007), pp. 6, 7. The admirals and generals involved in the study were General Gordon R. Sullivan, USA (Ret.), Admiral Frank "Skip" Bowman, USN (Ret.), Lieutenant General Lawrence P. Farrell Jr., USAF (Ret.), Vice Admiral Paul G. Gafney II, USN (Ret.), General Paul J. Kern, USA (Ret.), Admiral T. Joseph Lopez, USN (Ret.), Admiral Donald L. "Don" Pilling, USN (Ret.), Admiral Joseph W. Prueher, USN (Ret.), Vice Admiral Richard H. Truly, USN (Ret.), General Charles F. "Chuck" Wald, USAF (Ret.), and General Anthony C. "Tony" Zinni, USMC (Ret.). The RFF supported this convening of generals and admirals, but needless to say they exercised independent judgment in reaching their conclusions.

49 See 1978 Exxon Memo on Greenhouse Effect for Exxon Corporation Management Committee.

50 See Naomi Oreskes, "Beyond the Ivory Tower: The Scientific Consensus on Climate Change," *Science*, December 3, 2004.

51 See Climate Change in the American Mind.

52 Yale sociologist Justin Farrell told the *Los Angeles Times* that ideological "polarization around climate change…was manufactured by those whose financial and political interests were most threatened." See Lieberman and Rust, "Big Oil Braced for Global Warming." See also Justin Farrell, "Corporate Funding and Ideological Polarization About Climate Change," *Proceedings of the National Academy of Sciences of the United States of America*, January 5, 2016.

53 IPCC, *Climate Change 2014: Synthesis Report*, pp. 49–51.

A New Solution: The Climate Club
William D. Nordhaus

Exhibit S36

From: Lemuel Srolovic
To: Peter C. Frumhoff Ph. D.
Subject: Fwd: EM Statement on Yesterday"s AG Climate Confab
Date: Wednesday, March 30, 2016 1:27:05 PM

Here's Exxon's statement.

Sent from my iPhone

Begin forwarded message:

> **From:** Alan Belensz <Alan.Belensz@ag.ny.gov>
> **Date:** March 30, 2016 at 12:42:21 PM EDT
> **To:** Lemuel Srolovic <Lemuel.Srolovic@ag.ny.gov>, Mandy DeRoche <Mandy.DeRoche@ag.ny.gov>, John Oleske <John.Oleske@ag.ny.gov>
> **Subject: EM Statement on Yesterday's AG Climate Confab**
>
> http://www.exxonmobilperspectives.com/2016/03/29/exxonmobil-responds-to-state-ags/?sf23338460=1

Exhibit S37

L. 27

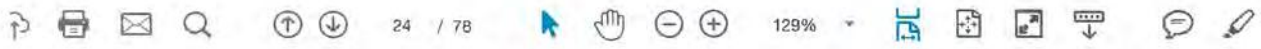
From: Kline, Scot
Sent: Monday, June 27, 2016 10:35 AM
To: Morgan, Wendy; Persampieri, Nick
Cc: Young, Susanne; Griffin, Bill
Subject: FW: Oregon proposed response to public records request--notification per Common Interest Agreement
Attachments: Hardin records request 5.02.16.pdf; Oregon_AG_May2.pdf

FYI. The records Oregon proposes to disclose are much like the ones we did – emails on logistics and draft agendas, etc.

From: Garrahan Paul [mailto:Paul.Garrahan@doj.state.or.us]
Sent: Friday, June 24, 2016 6:39 PM
To: 'Watson, Laura (ATG)' <LauraW2@ATG.WA.GOV>; 'Courchesne, Christophe (AGO)' <Christophe.Courchesne@MassMail.State.MA.US>; Kline, Scot <scot.kline@vermont.gov>; Reid, Jerry <Jerry.Reid@maine.gov>; Wilkins, Elizabeth (OAG) <elizabeth.wilkins@dc.gov>; Gignac, James <JGignac@atg.state.il.us>; 'Monica Wagner' <Monica.Wagner@ag.ny.gov>; 'Allen Brooks' <allen.brooks@doj.nh.gov>; 'Amy Winn' <Amy.Winn@doj.ca.gov>; 'Dennis Ragen' <dennis.ragen@doj.ca.gov>; 'Greg Schultz' <gSchultz@riag.ri.gov>; 'Heather Leslie' <Heather.Leslie@doj.ca.gov>; 'John Daniel' <jdaniel@oag.state.va.us>; 'John Oleske' <John.Oleske@ag.ny.gov>; 'Josh Auerbach' <jauerbach@oag.state.md.us>; 'Karen Olson' <Karen.Olson@ag.state.mn.us>; 'Lemuel Srolovic' <Lemuel.Srolovic@ag.ny.gov>; Seffern, Leslie (ATG) <LeslieS@ATG.WA.GOV>; 'Linda Singer' <lsinger@cohenmilstein.com>; 'Mandy DeRoche' <Mandy.DeRoche@ag.ny.gov>; 'Matthew Levine' <Matthew.Levine@ct.gov>; Hoffer, Melissa (AGO) <melissa.hoffer@state.ma.us>; 'Michael J. Myers' <Michael.Myers@ag.ny.gov>; 'Michele Van Gelderen' <Michele.VanGelderen@doj.ca.gov>; Persampieri, Nick <nick.persampieri@vermont.gov>; Flanagan Patrick A <Patrick.A.Flanagan@doj.state.or.us>; 'Peter Washburn' <Peter.Washburn@ag.ny.gov>; 'Ralph Durstein' <Ralph.Durstein@state.de.us>; 'Renee Gumbs' <Renee.Gumbs@doj.vi.gov>; 'Rhodes Ritenour' <rritenour@oag.state.va.us>; 'Robert Snook ' <Robert.snook@ct.gov>; 'Sally Magnani' <Sally.Magnani@doj.ca.gov>; 'Tania Maestas' <tmaestas@nmag.gov>; 'Tannis Fox' <tfox@nmag.gov>; Nord Tim D <Tim.D.Nord@doj.state.or.us>; Morgan, Wendy <wendy.morgan@vermont.gov>; 'William Grantham' <wgrantham@nmag.gov>
Cc: Persampieri, Nick <nick.persampieri@vermont.gov>; Kron Michael C <michael.c.kron@doj.state.or.us>; Ellenberg Noah <Noah.Ellenberg@doj.state.or.us>
Subject: Oregon proposed response to public records request--notification per Common Interest Agreement

PRIVILEGED & CONFIDENTIAL
SUBJECT TO COMMON INTEREST AGREEMENT

This is a notification from Oregon under paragraph 6 of our Climate Change Coalition Common Interest Agreement. In response to the attached public records request ("Oregon AG May2"), and pursuant to the requirements of the Oregon Public Records Law, ORS 192.410 to 192.505, we have made a tentative determination to release the records contained in the attached PDF file ("Hardin records request"). We will also be releasing other records that are technically



From: Kline, Scot
Sent: Friday, July 15, 2016 3:07 PM
To: Battles, Benjamin
Subject: RE: Response to the Climate Change PRR

I don't know if any states have disclosed common interest agreements, but I think many received requests. There is an AAG at the NYAGO who is their primary records request person. He is Michael Jerry. Last I checked, he was acting as a general coordinator for the climate change record requests. My suggestion is that you call him.

Michael Jerry
Assistant Counsel
FOIL Officer
212-416-8808

From: Battles, Benjamin
Sent: Friday, July 15, 2016 2:48 PM
To: Kline, Scot <scot.kline@vermont.gov>
Subject: RE: Response to the Climate Change PRR

Thanks Scot. Do you happen to know if any other states have received requests for the common interest agreements, and if so, whether any have disclosed them?

Thanks,
Ben

From: Kline, Scot
Sent: Friday, July 15, 2016 2:39 PM
To: Battles, Benjamin <Benjamin.Battles@vermont.gov>
Cc: Young, Susanne <susanne.young@vermont.gov>
Subject: FW: Response to the Climate Change PRR

Ben:

I understand you are helping with the administrative appeal of a records request relating to common interest agreements. The Climate Change Coalition common interest agreement is attached (Nick says there are two versions: one with California's signature without a date and one with a date). I also have attached the documents that were disclosed in April in response to an earlier records request. These include a draft of a common interest agreement

From: Battles, Benjamin
Sent: Friday, July 15, 2016 3:08 PM
To: Kline, Scot
Subject: RE: Response to the Climate Change PRR

Thanks Scot.

From: Kline, Scot
Sent: Friday, July 15, 2016 3:07 PM
To: Battles, Benjamin <Benjamin.Battles@vermont.gov>
Subject: RE: Response to the Climate Change PRR

I don't know if any states have disclosed common interest agreements, but I think many received requests. There is an AAG at the NYAGO who is their primary records request person. He is Michael Jerry. Last I checked, he was acting as a general coordinator for the climate change record requests. My suggestion is that you call him.

Michael Jerry
Assistant Counsel
FOIL Officer
212-416-8808

From: Battles, Benjamin
Sent: Friday, July 15, 2016 2:48 PM
To: Kline, Scot <scot.kline@vermont.gov>
Subject: RE: Response to the Climate Change PRR

Thanks Scot. Do you happen to know if any other states have received requests for the common interest agreements, and if so, whether any have disclosed them?

Thanks,
Ben

From: Kline, Scot
Sent: Friday, July 15, 2016 2:39 PM
To: Battles, Benjamin <Benjamin.Battles@vermont.gov>
Cc: Young, Susanne <susanne.young@vermont.gov>
Subject: FW: Response to the Climate Change PRR

Ben:

I understand you are helping with the administrative appeal of a records request relating to common interest agreements. The Climate Change Coalition common interest agreement is attached (Nick says there are two versions: one with California's signature without a date and one with a date). I also have attached the documents that

From: Kline, Scot
Sent: Tuesday, August 02, 2016 10:28 AM
To: Melanie M. Kehne (melanie.kehne@state.vt.us)
Subject: FW: New York FOI requests -- Climate Change Coalition
Attachments: FINAL NY Citizens OAG FOIL re Fahr mtg docs and pre ICN CJS publication ....pdf; EELI FMELC NY AG FOIL private accounts.pdf; EELI FMELC NY AG FOIL post 3.30 outside advisor comms.pdf; CEI NY AG FOIL Common Interest Agreements (002).pdf

Michael Jerry's contact information is below.

From: Michael Jerry [mailto:Michael.Jerry@ag.ny.gov]
Sent: Friday, May 06, 2016 12:02 PM
To: Allen Brooks <allen.brooks@doj.nh.gov>; Amy Winn <Amy.Winn@doj.ca.gov>; Christopher Courchesne <christophe.courchesne@state.ma.us>; Dennis Ragen <dennis.ragen@doj.ca.gov>; Elizabeth Wilkins <elizabeth.wilkins@dc.gov>; Greg Schultz <gSchultz@riag.ri.gov>; Heather Leslie <Heather.Leslie@doj.ca.gov>; James Gignac <JGignac@atg.state.il.us>; Jerry Reid <Jerry.Reid@maine.gov>; John Daniel <jdaniel@oag.state.va.us>; John Oleske <John.Oleske@ag.ny.gov>; Josh Auerbach <jauerbach@oag.state.md.us>; Karen Olson <Karen.Olson@ag.state.mn.us>; Laura Watson <lauraw2@atg.wa.gov>; Lemuel Srolovic <Lemuel.Srolovic@ag.ny.gov>; Leslie Seffern <LeslieS@ATG.WA.GOV>; Mandy DeRoche <Mandy.DeRoche@ag.ny.gov>; Matthew Levine <Matthew.Levine@ct.gov>; Melissa Hoffer <Melissa.Hoffer@MassMail.State.MA.US>; Michael J. Myers <Michael.Myers@ag.ny.gov>; Michele Van Gelderen <Michele.VanGelderen@doj.ca.gov>; Monica Wagner <Monica.Wagner@ag.ny.gov>; Persampieri, Nick <nick.persampieri@vermont.gov>; Patrick Flanagan <Patrick.A.Flanagan@doj.state.or.us>; Paul Garrahan <Paul.Garrahan@doj.state.or.us>; Peter Washburn <Peter.Washburn@ag.ny.gov>; Ralph Durstein <Ralph.Durstein@state.de.us>; Renee Gumbs <Renee.Gumbs@doj.vi.gov>; Rhodes Ritenour <rritenour@oag.state.va.us>; Robert Snook <Robert.snook@ct.gov>; Sally Magnani <Sally.Magnani@doj.ca.gov>; Kline, Scot <scot.kline@vermont.gov>; Tania Maestas <tmaestas@nmag.gov>; Tannis Fox <tfox@nmag.gov>; Tim Nord <Tim.D.Nord@doj.state.or.us>; Morgan, Wendy <wendy.morgan@vermont.gov>; William Grantham <wgrantham@nmag.gov>
Subject: New York FOI requests -- Climate Change Coalition

All,

Pursuant to the Common Interest Agreement, we are notifying you that the New York Attorney General's Office received the attached freedom of information requests.

Thanks,
Michael Jerry
Assistant Counsel
FOIL Officer
212-416-8808

From: Reid, Jerry <Jerry.Reid@maine.gov>
Sent: Friday, September 09, 2016 7:33 PM
To: Paul.Garrahan@doj.state.or.us
Cc: RRitenour@oag.state.va.us;elizabeth.wilkins@dc.gov;LauraW2@ATG.WA.GOV;Kline, Scot;K.Allen.Brooks@doj.nh.gov;Christophe.Courchesne@MassMail.State.MA.US;Michael.Jerry@ag.ny.gov;Amy.Winn@doj.ca.gov;christophe.courchesne@state.ma.us;dennis.ragen@doj.ca.gov;Heather.Leslie@doj.ca.gov;JGignac@atg.state.il.us;JDaniel@oag.state.va.us;John.Oleske@ag.ny.gov;jauerbach@oag.state.md.us;Karen.Olson@ag.state.mn.us;Lemuel.Srolovic@ag.ny.gov;LeslieS@ATG.WA.GOV;Mandy.DeRoche@ag.ny.gov;Matthew.Levine@ct.gov;melissa.hoffer@state.ma.us;Michael.Myers@ag.ny.gov;Michele.VanGelderen@doj.ca.gov;Monica.Wagner@ag.ny.gov;Persampieri, Nick;Patrick.A.Flanagan@doj.state.or.us;Peter.Washburn@ag.ny.gov;Renee.Gumbs@doj.vi.gov;Robert.snook@ct.gov;Sally.Magnani@doj.ca.gov;tmaestas@nmag.gov;tfox@nmag.gov;Tim.D.Nord@doj.state.or.us;Morgan, Wendy;wgrantham@nmag.gov;jillian.riley@state.ma.us
Subject: Re: Request for conference call to discuss records requests

I agree.

Sent from my iPhone using ZixOne

On Sep 9, 2016 at 7:10 PM "Garrahan Paul" <Paul.Garrahan@doj.state.or.us> wrote:

PRIVILEGED AND CONFIDENTIAL COMMUNICATION

SUBJECT TO COMMON INTEREST AGREEMENT

In furtherance of our common interest in potential investigations and litigation, as described in our common interest agreement, I suggest that we schedule a telephone conference ASAP to discuss the attached requests, which most of us have now received, and which some of us have responded to. Thank you.

Paul Garrahan

Attorney-in-Charge | Natural Resources Section | General Counsel Division

Oregon Department of Justice

1162 Court St. NE, Salem, OR 97301-4096

503.947.4593 (Direct)

503.929.7553 (Mobile)

From: Monica Wagner <Monica.Wagner@ag.ny.gov>
Sent: Friday, September 09, 2016 8:18 PM
To: Reid, Jerry
Cc: Paul.Garrahan@doj.state.or.us;RRitenour@oag.state.va.us;elizabeth.wilkins@dc.gov;LauraW2@ATG.WA.GOV;Kline, Scot;K.Allen.Brooks@doj.nh.gov;Christophe.Courchesne@MassMail.State.MA.US;Michael Jerry;Amy.Winn@doj.ca.gov;christophe.courchesne@state.ma.us;dennis.ragen@doj.ca.gov;Heather.Leslie@doj.ca.gov;JGignac@atg.state.il.us;JDaniel@oag.state.va.us;John Oleske;jauerbach@oag.state.md.us;Karen.Olson@ag.state.mn.us;Lemuel Srolovic;LeslieS@ATG.WA.GOV;Mandy DeRoche;Matthew.Levine@ct.gov;melissa.hoffer@state.ma.us;Michael J. Myers;Michele.VanGelderen@doj.ca.gov;Persampieri, Nick;Patrick.A.Flanagan@doj.state.or.us;Peter Washburn;Renee.Gumbs@doj.vi.gov;Robert.snook@ct.gov;Sally.Magnani@doj.ca.gov;tmaestas@nmag.gov;tfox@nmag.gov;Tim.D.Nord@doj.state.or.us;Morgan, Wendy;wgrantham@nmag.gov;jillian.riley@state.ma.us;Leslie Dubeck
Subject: Re: Request for conference call to discuss records requests

I'll schedule a call early next week.

On Sep 9, 2016, at 7:33 PM, Reid, Jerry <Jerry.Reid@maine.gov> wrote:

> I agree.

Sent from my iPhone using ZixOne

On Sep 9, 2016 at 7:10 PM "Garrahan Paul" <Paul.Garrahan@doj.state.or.us> wrote:

> PRIVILEGED AND CONFIDENTIAL COMMUNICATION
>
> SUBJECT TO COMMON INTEREST AGREEMENT
>
> In furtherance of our common interest in potential investigations and litigation, as described in our common interest agreement, I suggest that we schedule a telephone conference ASAP to discuss the attached requests, which most of us have now received, and which some of us have responded to. Thank you.
>
> **Paul Garrahan**
>
> Attorney-in-Charge | Natural Resources Section | General Counsel Division
>
> Oregon Department of Justice
>
> 1162 Court St. NE, Salem, OR 97301-4096

Exhibit S38

53 Misc.3d 1216(A)
Unreported Disposition
(The decision is referenced in the New York Supplement.)
Supreme Court, Albany County, New York.

COMPETITIVE ENTERPRISE INSTITUTE, Petitioner, for a
Judgment Pursuant to Article 78 of the Civil Practice Law and Rules
v.
The ATTORNEY GENERAL OF NEW YORK, Respondent.

No. 5050–16.
|
Nov. 21, 2016.

Attorneys and Law Firms

Baker & Hostetler, LLP, Mark Bailen, Esq., of counsel, Washington, DC, attorneys for petitioner.

Baker & Hostetler, LLP, Elizabeth Schutte, Esq., of counsel, New York, attorneys for petitioner.

Eric T. Schneiderman, Esq., Attorney General, Shannan C. Krasnokutski, Esq., of counsel, Albany, attorneys for respondent.

Opinion

HENRY F. ZWACK, J.

***1** Petitioner Competitive Enterprise Institute (CEI) brings this Article 78 seeking an order compelling Respondent New York State Attorney General to comply with its request under the Freedom of Information Law (FOIL). In addition to seeking compliance, petitioner also seeks an award of attorneys fees and costs. Respondent has moved to dismiss the petition as moot, arguing that the publication of the one document it deems responsive to petitioner's FOIL request—the Climate Change Coalition Common Interest Agreement ("CIA")—and also that it found "no documents responsive to that portion of the request seeking a Common Interest Agreement with the non-State individuals and entities listed in the request," renders the petition moot, as petitioners have received all the relief they are entitled to.

When a FOIL request is made, an agency is "duty-bound to conduct a 'diligent search' of the records in its possession responsive to the request and to state, in writing the reason for the denial of access" (*Matter of West Harlem Bus. Group v. Empire State Dev. Corp.,* 13 NY3d 882,884 [2009], internal quotations and citations omitted). The response "must not 'merely parrot' the statutory language of the FOIL exemptions, but must 'adequately describe the documents withheld and set forth the reasons for withholding them." (*Matter of Moody's Corp. & Subsidiaries v. New York State Dept. of Taxation & Fin.,* 141 AD3d 997, 999 [3d Dept 2016]), internal quotations and citations omitted). When faced with an Article 78 challenge such as this, "the agency bears the burden of 'articulating a particularized and specific justification for denying access' " *(Matter of Rose v. Albany County Dist. Attorney's Off.,* 111 AD3d 1123,1125 [3d Dept 2013]), quoting *Matter of Kaufman v. New York State Dept. Of Envtl. Conservation,* 289 A.D.2d 826, 827 [2001]). Petitioner asserts that respondent failed to give the required detail of its search, as its original denial letter made reference to the existence of records. Petitioner also points out—although the respondent now relies on the release by a third party of the CIA report—respondent remains obligated to produce the document for petitioners. Petitioners also request a finding by the Court that the CIA is a public document and respondents lacked a reasonable basis in the law for withholding it, which would entitle them to attorneys fees and costs on this Article 78.

There is a clear discrepancy between respondent's initial FOIL request determination and the answer it submits in this Article 78. Initially, respondent indicated it had "records responsive to your request"—withheld without any description of the documents—and now identifies only "one document potentially responsive to the Request." The Court agrees with petitioner that respondent must provide more detail regarding its search for common interest agreements "that mention or otherwise include" the individuals and entities specified in petitioner's request. Further, in denying the request, respondent has the burden of demonstrating the records fall within one of the statutory exemptions (*Matter of Washington Post Co. v. New York State Ins. Dept,* 61 N.Y.2d 557[1984]). In its initial denial of petitioner's request, petitioner asserted that the records fell within 'one or more' of five possible exemptions. However viewed, the denial was nothing more than a parroting of statutory language, and thus a complete failure of its obligation "to fully explain in writing ... the reason for the denial of access" (*Matter of West Harlem Bus. Group,* 885).Turning to the application by petitioner for attorneys fees and costs (Public Officers Law 89[4][c]), although respondent argues that it should not be subject to attorney fees and costs because it substantially complied with the petitioner's request, on this record the Court finds that this was simply not the case. Here, petitioner has substantially prevailed and respondent's "conclusory assertions that certain records fall within a statutory exemption are not sufficient" (*Matter of Acme Bus Corp. v. County of Suffolk,* 136 AD3d 896, 898 [2d Dept 2016] to deny access.

***2** Accordingly, the subject FOIL request is referred back to the Attorney General for a response, within 30 days, that fully complies with the intent and purpose of this disclosure statute. Petitioners may within 60 days submit their application for attorney fees and costs on notice to respondent, who shall have the ability to submit a written response within 30 days following, with the Court to schedule a hearing, on request of either party, on the issue.

This constitutes the Decision and Order of the Court. This original Decision and Order is returned to the attorneys for the Petitioner (Elizabeth Schutte, Esq., of counsel) for filing and entry. All other papers are delivered to the Supreme Court Clerk for transmission to the County Clerk. The signing of this Decision and Order shall not constitute entry or filing under CPLR 2220. Counsel is not relieved from the applicable provisions of this rule with regard to filing, entry and Notice of Entry.

Papers Considered:
Notice of Petition dated August 31, 2016; Verified Petition sworn to August 26, 2016; Affidavit of Hans Bader sworn to August 26, 2016 together with Exhibits "1" through:4";

Notice of Motion dated September 30, 2016; Affirmation of Michael Jerry, Esq., dated September 30, 2016, together with Exhibits "A" and "B"; Memorandum of Law dated September 30, 2016.

3. Affirmation of Elizabeth M. Schutte, Esq., dated October 25, 2016; Memorandum of Law, dated October 25, 2016..

All Citations

53 Misc.3d 1216(A), 52 N.Y.S.3d 245 (Table), 2016 WL 6989406, 2016 N.Y. Slip Op. 51687(U)

End of Document

Exhibit S39

SUPREME COURT OF THE STATE OF NEW YORK
COUNTY OF NEW YORK

In the matter of:

ENERGY & ENVIRONMENT
LEGAL INSTITUTE

Petitioners,

-against-

THE ATTORNEY GENERAL OF NEW YORK

Respondent,

For a judgment pursuant to Article 78
of the Civil Practice Law and Rules.

Index No. 101678/2016

Hon. Nancy M. Bannon

MEMORANDUM OF LAW IN SUPPORT OF RESPONDENT'S VERIFIED ANSWER AND IN OPPOSITION TO THE PETITION

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New York, New York 10271
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Assistant Attorney General
Of Counsel

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PRELIMINARY STATEMENT

Respondent, the Attorney General of the State of New York, submits this Memorandum of Law in support of his verified answer and in opposition to the verified petition of Petitioner Energy & Environment Legal Institute ("E&E"), a nonprofit organization focused on public policy research and litigation with offices in Washington, D.C. Petitioner alleges that the Office of the Attorney General ("OAG") violated New York's Freedom of Information Law, Public Officers Law Article 6 ("FOIL"), by withholding certain of its records.

FOIL provides for the release of certain agency records upon request but, as relevant here, contains exceptions for: (a) records the release of which would interfere with law enforcement investigations; (b) inter-agency and intra-agency materials (subject to certain exceptions that are not relevant here); and (c) records that are exempted from disclosure by other statutes, such as records reflecting attorney work product and attorney-client communications. Here, E&E submitted two FOIL requests to the OAG on March 30, 2016 and May 5, 2016, respectively, seeking in large part records related to OAG's ongoing investigation into whether ExxonMobil Corporation's ("Exxon") statements to New York investors and consumers concerning climate change violated New York state consumer, business, and securities fraud laws. E&E's March Request sought records as related to Attorney General Schneiderman's "investigation into whether ExxonMobil committed fraud by lying to investors and the public about the risks of climate change." (Petition, Ex. 1, p. 3.) The May Request likewise referred to ongoing investigations by the Attorney General for potential violations of state laws, including the Martin Act, Gen. Bus. Law article 23-A, related to "climate." (Petition, Ex. 5, p. 3.)

OAG performed diligent searches in response to both FOIL requests, which yielded 522 documents responsive to the March Request and 68 documents responsive to the May Request.

The OAG Records Access Officer determined that 41 of the 522 responsive records to the March Request and 7 of the 68 responsive records to the May Request were subject to disclosure. Not surprisingly, given E&E's own acknowledgment that it was seeking records related to OAG's ongoing investigation about possible violations of state law, the Records Access Officer determined that 481 of the 522 responsive documents and 61 of the 68 responsive documents were exempt from disclosure pursuant to FOIL §§ 87(2)(a), (g), or (e) because their release would interfere with a law enforcement investigation, or because they were inter-agency or intra-agency communications, or because they were attorney work product or attorney-client communications. Indeed, the vast majority of the responsive documents for both requests were properly withheld for more than one recognized FOIL exception. The Records Access Officer's determinations were subsequently upheld by OAG's Records Appeals Officer.

In this Article 78 proceeding, E&E claims that: (1) FOIL's exception for disclosures that would interfere with a law enforcement investigation is not available here because, in E&E's opinion, OAG's investigation is illegitimate and political in nature; (2) the inter-agency or intra-agency materials exception has somehow been waived because, without E&E offering a shred of evidence in support of its speculation, "*it seems* likely that records responsive to petitioner's request would have been shared . . . [with] outside parties. . ." (Petition, ¶ 11) (emphasis added); and (3) any attorney-client communication exception is not available because purportedly no attorney-client relationship exists. E&E's claims are wholly without merit for the reasons set forth herein.

To assist the Court in its resolution of E&E's claims, OAG also submits an Exemption/Privilege Log, identifying each and every document withheld and the reasons for such withholding, which is annexed as Exhibit G to the affirmation of OAG's Records Review

Officer, Assistant Attorney General Michael Jerry. Additionally, OAG will make the withheld responsive records available to the Court for an *in camera* inspection, should the Court deem it necessary.

STATEMENT OF FACTS

I. BACKGROUND

The OAG is the chief law enforcement agency for the State of New York. *See* Exec. Law § 63. The Executive Law directs OAG, *inter alia*, to prosecute instances of "repeated fraudulent or illegal acts" or instances of "persistent fraud or illegality in the carrying on [and] conducting or transaction of business." Exec. Law § 63(12). Also, the Martin Act vests the Attorney General with broad authority to investigate allegations of financial fraud and to bring civil and criminal actions. Gen. Bus. Law §§ 352-359-h. Similarly, Article 22-A of the General Business Law vests the Attorney General with broad authority to bring suit to enjoin acts of consumer fraud and deception. Gen. Bus. Law § 349.

Pursuant to these statutory authorities, in 2015, OAG began investigating whether public statements that ExxonMobil Corporation ("Exxon") made to its investors and consumers violated New York business, securities, and consumer fraud laws, *i.e.*, Executive Law § 63(12) and General Business Law §§ 349 and 352-359-h. Affirmation of Lemuel M. Srolovic, Environmental Protection Bureau Chief, dated December 22, 2016, ¶ 3 ("Srolovic Aff."). Before OAG began its investigation, Exxon had made numerous public statements to New York investors and consumers concerning its purported understanding of the causes, course, and business and financial impact of climate change. Apparent contradictions between some of those statements and internal company documents that became publicly available in early 2015 suggested that Exxon may not have accurately portrayed the company's own conclusions or

beliefs on these topics in statements to investors and consumers. (*Id.*) If it determines that Exxon violated General Business Law §§ 349 and/or 352-359-h and/or Executive Law § 63(12), or any other applicable laws, OAG would bring enforcement litigation, if it is unable to resolve these violations with Exxon through alternative means. (*Id.* ¶ 4.)

As part of its ongoing investigation, OAG attorneys and staff members have generated a substantial number of documents that reflect their legal research, analysis, legal theories and/or strategy. (*Id*. ¶ 5.) Such materials include, but are not limited to, memoranda, electronic and hard copy correspondence, and drafts of legal briefs, some of which were prepared for anticipated litigation. (*Id.*) OAG attorneys and staff members involved with the investigation frequently communicate with each other by electronic mail to share their ideas, opinions, legal research, analysis, and legal strategy, as well as what information OAG has already obtained and what information it is seeking. (*Id.* ¶ 6.)

Additionally, OAG attorneys and staff members communicate electronically with organizations and individuals outside OAG that have information. (*Id.* ¶ 7.) Depending on their merit or veracity, such communications can assist OAG in developing its investigative strategy and particular areas of focus, and in determining what information and documents it will seek from Exxon. (*Id.*) OAG attorneys also communicate with Exxon's attorneys, by electronic and hard correspondence, to discuss OAG's areas of particular focus in the investigation. (*Id.* ¶ 8.) Finally, OAG engaged in numerous confidential communications with an attorney outside the OAG, who has provided legal advice, during the beginning stages of the investigation and who has previously represented other states in this field, although OAG has not retained this attorney. (*Id.* ¶ 9.)

Disclosure of these documents would interfere with OAG's ongoing investigation because the information contained therein could be used by Exxon or third parties to thwart or otherwise interfere with the remainder of the investigation contrary to the purposes of FOIL. *See Fink v. Lefkowitz*, 47 N.Y.2d 567, 572 (1979); Srolovic Aff. ¶¶ 5-8.

A. E&E's March 30, 2016 FOIL Request

On March 30, 2016, E&E submitted a FOIL request seeking:

> copies of all emails, including attachments, sent to or from (including also as cc: or bcc:) New York Attorney General Eric Schneiderman, New York State Office of the Attorney General Environmental Protection Bureau's Deputy Bureau Chief Lisa Burianek, and/or the New York State Office of the Attorney General Environmental Protection Bureau's Deputy Bureau Chief [sic] Lemuel Srolovic, which correspondence uses <u>any</u> of the following terms, <u>anywhere</u> in the email, including in the body, To, From, cc: and/or bcc: or Subject fields:
>
> a) steve.coll@columbia.edu
> b) thomasgwatkins@yahoo.com
> c) scott.dodd@gmail.com
> d) ssc2136@columbia.edu
> e) ktoulon@bloomberg.net
> f) alflip63@yahoo.com
> g) myh7@columbia.edu
> h) dmcdermott@brunswickgroup.com
> i) 'ExxonMobil'
> j) 'Columbia Journalism School'
> k) 'CJS'
> l) 'Steve Coll'
> m) 'Sheila Coronel'
> n) 'Marguerite Holloway'
> o) 'Rockefeller'
>
> Time period covered: responsive records will be dated from January 1, 2015 through December 31, 2015.

(Petition, Ex. 1, pp. 1-2) (emphasis in original). In the March Request, E&E described the records sought as related to Attorney General Schneiderman's "investigation into whether ExxonMobil committed fraud by lying to investors and the public about the risks of climate change." (Petition, Ex. 1, p. 3.)

The March Request was referred to the OAG Records Access Officer and was assigned the tracking number "160197." Affirmation of Michael Jerry, Assistant Attorney General, dated December 22, 2016, ¶ 4 ("Jerry Aff."). The Records Access Officer directed the Information Technology staff to search the OAG-maintained email accounts of Attorney General Schneiderman, Environmental Protection Bureau Chief Lemuel Srolovic, and Environmental Protection Deputy Bureau Chief Lisa Burianek for any for any emails including attachments thereto that (a) were either from or to Attorney General Scheiderman, Bureau Chief Srolovic, or AAG Burianek (either as the principal addressee or as a cc or bcc); and (b) included in the subject line, address, or text of the email any one or more of the key terms listed in the Request. Jerry Aff. ¶ 7.

The search produced 522 responsive documents. (*Id.* ¶ 8.) After reviewing the responsive documents, the Records Access Officer determined that 41 documents were subject to disclosure and that—pursuant to FOIL §§ 87(2)(a), (g), and (e)—481[1] of the responsive documents were exempt from disclosure. On September 2, 2016, the Records Access Officer electronically transmitted to E&E copies of 41 documents (numbered 160197-1 through 160197-128 and totaling 128 pages) that were responsive to the Request and subject to disclosure.[2] (*Id.* ¶ 10.) The Records Access Officer also stated in writing that "other records responsive to [the] request are exempt from disclosure and have been withheld for one or more of the following reasons": (1) the responsive records constituted confidential attorney-client communications or attorney work product, both of which are exempt from disclosure pursuant to FOIL § 87(a)(2); (2) were

[1] Of the 481 documents that were withheld, four of those documents that are responsive but were mistakenly not previously provided to E&E are annexed as Exhibit H to the Jerry Affirmation. Personal cellular telephone numbers have been redacted. None of the documents has anything to do with the matters that E&E has indicated are the subjects of its interest.

[2] E&E did not challenge on appeal and has not attempted to challenge in this proceeding certain limited redactions that OAG made pursuant to FOIL §§ 87(2)(b) and (g) to prevent unwarranted invasions of personal privacy and to protect the confidentiality of intra-agency communications.

compiled for law-enforcement purposes and are exempt from disclosure pursuant to FOIL §87(2)(e); and (3) were inter-agency or intra-agency materials, which are exempt from disclosure pursuant to FOIL§ 87(2)(g). (*Id.* ¶ 11 and Ex. A to Jerry Aff.) By letter dated September 8, 2016 (Petition, Ex. 3), E&E administratively appealed this determination, as discussed below in Section C.

B. E&E's May 5, 2016 FOIL Request

On May 5, 2016, E&E submitted an additional FOIL request seeking:

> copies of all text messages and emails, including attachments, 1) sent to or from any of four OAG officials (including also as cc: or bcc:), Operations Director *Christina Harvey*, Executive Deputy Attorney General for Social Justice *Alvin Bragg*, Executive Deputy Attorney General for Economic Justice *Karla Sanchez*, and Environmental Protection Bureau Chief *Lem Srolovic*, 2) which correspondence is to or from, or uses *any* of the following, *anywhere* including e.g., in the email body, To, From, cc: and/or bcc: or Subject fields:
>
> a) Pawa (including but not limited to e.g., mp@pawalaw.com)
> b) any @pawalaw.com email address
> c) Frumhoff (including but not limited to e.g., PFrumhoff@ucsusa.org)
> d) any @ucsusa.org email address
> e) Eubanks
>
> Responsive records will be dated from [March 30, 2016][3] through the date you process this request, inclusive.

(Petition, Ex. 5, pp. 1-2.) (emphasis in original). In the May request, E&E claimed that Attorney General Schneiderman has used the Racketeer Influenced and Corrupt Organizations Act ("RICO"), the Martin Act, and other related laws to "investigate those who engage in public debate regarding the accuracy of claims made to promote the 'climate' agenda, or claims made regarding renewable energy." (*Id.* p. 3.) In its petition, E&E asserts that both of its requests seek

[3] The initial May request contained a typographical error and E&E submitted an amended request, correcting the requested time-frame for responsive records to March 30, 2016 until the date the request was processed. *See* Petition, ¶ 17, n.1 and Jerry Aff. ¶ 15 and Ex. C to Jerry Aff.

records "related to the Attorney General's decision" "to investigate those who disagree with him on climate change." (Petition ¶¶ 4, 17.)

The May request was referred to the OAG's Records Access Officer and was assigned the tracking number "160288." Jerry Aff. ¶ 13. The Records Access Officer directed[4] the Information Technology staff to search the OAG-maintained email accounts of Environmental Protection Bureau Chief Lemuel Srolovic, Operations Director Christina Harvey, Executive Deputy Attorney General for Social Justice Alvin Bragg, and Executive Deputy Attorney General for Economic Justice Karla Sanchez for any emails including attachments thereto that (a) was either from or to Bureau Chief Srolovic, EDAG Bragg, EDAG Sanchez, or Operations Director Harvey (either as the principal addressee or as a cc or bcc) and (b) included in the subject line, address, or text of the email any one or more of the key terms listed in the Request. (*Id.* ¶ 16)

The search produced 68 responsive documents. (*Id.* ¶ 17.) After reviewing the responsive documents, the Records Access Officer determined that 7 documents were subject to disclosure and that—pursuant to FOIL §§ 87(2)(a), (g), and (e) —61 of the responsive documents were exempt from disclosure. (*Id*.) On September 2, 2016, the Records Access Officer electronically responded to the May Request, producing to E&E copies of 7 documents (numbered 160288-1 through 160288-58 and totaling 58 pages).[5] (*Id.* ¶ 19.) The Records Access Officer also electronically sent E&E a cover letter indicating that "other records responsive to [the] request are exempt from disclosure and have been withheld for one or more of the following reasons":

[4] The May Request sought a search of text messages sent to or from Operations Director Harvey, EDAG Bragg, EDAG Sanchez, or Bureau Chief Srolovic containing any of the keywords identified in the Request. As part of the OAG's diligent search, the custodians confimed that there were no responsive records. Jerry Aff. ¶ 16, n. 1.

[5]E&E has not appealed and has therefore waived any challenge to the appropriate redaction of certain limited information from the records that were produced in response to the May request. *See also* n. [1] *supra.*

(1) the responsive records constituted confidential attorney-client communications or attorney work product, both of which are exempt from disclosure pursuant to FOIL § 87(a)(2); (2) the records were compiled for law-enforcement purposes and are exempt from disclosure pursuant to FOIL § 87(2)(e); and (3) the records were inter-agency or intra-agency materials, which are exempt from disclosure pursuant to FOIL § 87(2)(g). (*Id.* ¶ 20 and Ex. D.) By letter dated September 8, 2016, E&E administratively appealed the determination, as discussed below in Section C. (*Id.* ¶ 21.)

C. E&E's Appeals of FOIL Responses to the March and May Requests to the Records Appeals Officer

By letters dated September 8, 2016, E&E administratively appealed the Records Access Officer's determinations for the March and May FOIL Requests to the OAG's Records Appeals Officer, Kathryn Sheingold, Assistant Solicitor General. (Petition, Exs. 3 and 7, respectively.) Both appeals asserted that the FOIL responses were deficient because, *inter alia*, the Records Access Officer did not provide information as to how the exceptions applied to the withheld documents. (*Id.*) Specifically, E&E claimed that: (1) the OAG must identify the client in any communication withheld pursuant to attorney-client privilege to justify invoking the exception; (2) any work product privilege would be waived if such documents were shared with parties outside the OAG; and (3) insufficient information was provided to justify withholding documents pursuant to either the law enforcement or inter-agency or intra-agency exceptions. (Petition, Ex. 3 at 3-7 and Ex. 7 at 3-6.)

By letters dated September 22, 2016 and September 23, 2016, Ms. Sheingold sustained the Records Access Officer's determinations for FOIL Requests 160197 and 160288, respectively. (Jerry Aff. ¶¶ 12, 21 and Exs. B and E). Ms. Sheingold explained that because the OAG is currently investigating Exxon, responsive records were properly withheld pursuant to the

law enforcement exemption, as these records would reveal, *inter alia*, "areas of investigative concern" and "the nature of the OAG's strategy." (Jerry Aff., Ex. B at 2 and Ex. E at 2.) Moreover, disclosure of these records would result in "identifying potential witnesses" and "notifying individuals and entities with relevant information of what the OAG has already received and thereby giving them the opportunity to destroy or conceal that in their possession not already produced." (*Id.*) Ms. Sheingold further explained that many of the responsive documents were also intra-agency documents because the communications were between OAG employees only, and that some of these OAG-only documents also constituted attorney work product. (Jerry Aff., Ex. B at 3 and Ex. E at 2.) Additionally, some responsive records constituted confidential communications between an attorney and OAG as a prospective client and accordingly, were withheld as confidential attorney-client communications. (*Id.*) Finally, Ms. Sheingold stated that the OAG is under no obligation to "provide an estimate of the number of responsive records" or to "explain with particularity how an exception applies to any discrete record withheld." (Jerry Aff., Ex. B at 3 and Ex. E at 3.)

II. THE ARTICLE 78 PROCEEDING

On October 6, 2016, E&E commenced this Article 78 proceeding, challenging the OAG's determinations with respect to the two FOIL Requests at issue. E&E does not challenge the sufficiency or scope of the search that OAG conducted, nor does it challenge OAG's withholding of certain responsive records on the grounds that the records are attorney work product exempt from disclosure pursuant to FOIL § 87(2)(a).

E&E claims instead that OAG is not engaged in a "legitimate" investigation of Exxon and therefore cannot make use of FOIL's law enforcement exemption. (Petition, ¶ 15.) Additionally, E&E argues that OAG has somehow waived the inter-agency and intra-agency

materials exception because "*it seems likely* that records responsive to petitioner's request would have been shared . . . [with] . . . outside parties." (Petition, ¶ 11) (emphasis added). E&E does not offer a shred of evidence in support of its speculation. E&E further posits, without any factual support, that responsive records could not properly be withheld pursuant to FOIL § 87(2)(a), which shields attorney-client communications from disclosure, because "no attorney-client relationship exists between the Attorney General and outside parties" or "because sharing of material outside of any attorney-client relationship would waive the privilege." (Petition ¶¶ 15, 29.)

E&E's claims are baseless. As set forth herein, the OAG is engaged in an ongoing investigation of Exxon, which E&E acknowledged in both of its requests and the petition, and therefore, the disclosure of any related documents that would interfere with this investigation are shielded from disclosure pursuant to FOIL's law enforcement exception. Moreover, only 16 responsive records constituting attorney-client communications were withheld as exempt pursuant to FOIL § 87(2)(a) and all 16 are also properly withheld pursuant to the law enforcement exception. (Jerry Aff. ¶ 23.) The vast majority of the responsive records constitute communications between OAG-only employees and therefore, were properly withheld pursuant to FOIL § 87(2)(g). Finally, because E&E does not challenge the 133 withheld records that are exempt pursuant to the attorney work product exemption pursuant to FOIL § 87(2)(a), these responsive records are not therefore at issue, and in any event, any challenge to the work product exemptions would have been meritless. Accordingly, E&E's claims are without merit and should be dismissed.

ARGUMENT

Judicial review of an agency's response to a FOIL request considers "whether the determination was affected by an error of law." *Matter of Thomas v. Condon*, 128 A.D.3d 528, 529 (1st Dep't 2015) (internal quotation marks omitted). *See also Matter of New York Comm. for Occupational Safety & Health v. Bloomberg*, 72 A.D.3d 153, 158 (1st Dep't 2010) (explaining that the "arbitrary and capricious" standard that is generally used when reviewing agency actions is inapplicable to FOIL-related challenges and the court must "presume that all records of a public agency are open to public inspection, and must require the agency to bear the burden of showing that the records fall squarely within an exemption to disclosure").

It is well-established that "[a]ll government records are presumptively open for public inspection unless specifically exempted from disclosure as provided in the Public Officers Law." *Fappiano v. New York City Police Dep't*, 95 N.Y.2d 738, 746 (2001) (citing FOIL § 87(2) and *Matter of Gould v. New York City Police Dep't*, 89 N.Y.2d 267 (1996)). A "record" is "any information kept, held, filed, produced or reproduced by, with or for an agency." FOIL § 86(4).

The OAG, as a state governmental agency, is subject to FOIL's requirements. After receiving a FOIL request, OAG's records access officer must "conduct a 'diligent search' of the records in its possession responsive to the request" and "state, in writing, the reason for the denial of access" to records withheld pursuant to a FOIL exception. *Matter of West Harlem Bus. Group v. Empire State Dev. Corp.*, 13 N.Y.3d 882, 884 (2009) (internal citations omitted). Then, upon administrative appeal, the agency's appeal officer must explain in writing to the person requesting the records the reasons for continued denial. *Id*. at 884-85; FOIL § 89(4)(a).

A party may seek judicial review of an administrative FOIL appeal in an Article 78 proceeding, wherein the agency must show "that the requested material falls squarely within a

FOIL exemption by articulating a particularized and specific justification for denying access." *Capital Newspapers Div. of Hearst Corp. v. Burns*, 67 N.Y.2d 562, 566 (1986). *See also Matter of Town of Waterford v. New York State Dep't of Envtl. Conservation*, 18 N.Y.3d 652, 657 (2012) and *Matter of Bass Pro, Inc. v. Megna*, 69 A.D.3d 1040, 1041 (3d Dep't 2010). Courts have held that an agency satisfies this burden by providing the documents to the Supreme Court for an *in camera* inspection. *Kaufman v. New York State Dep't of Envtl. Conservation*, 289 A.D.2d 826, 827 (3d Dep't 2001). *See also M. Farbman & Sons, Inc. v. New York City Health & Hosps. Corp.*, 62 N.Y.2d 75, 83 (1984) (explaining that the "proper procedure for reaching a determination [of whether the agency satisfied its burden] is the *in camera* inspection ordered by Special Term") and *Matter of Mazzone v. New York State Dep't of Transp.*, 95 A.D.3d 1423, 1425 (3d Dep't 2012). Indeed, where disclosing the "underlying facts" in the responsive records to demonstrate that the records were properly withheld pursuant to a FOIL exemption "would effectively subvert the purpose of the [FOIL] exemptions which is to preserve the confidentiality of this information," an *in camera* inspection is appropriate. *Nalo v. Sullivan*, 125 A.D.2d 311, 312 (2d Dep't 1986).

Moreover, courts have found that they need not consider the sufficiency of the agency's administrative response when the agency submits the withheld records and a corresponding privilege log to the Supreme Court for review. *Matter of Moody's Corp. & Subsidiaries v. New York State Dep't of Taxation and Fin.*, 141 A.D.3d 997, 999 (3d Dep't 2016) ("[T]here is no reason for us to consider petitioner's claims with regard to the adequacy of the administrative responses because, by submitting the documents and the log for Supreme Court's review, the Department properly responded to petitioner's challenge pursuant to CPLR article 78.") and *Kaufman*, 289 A.D.2d at 827 (finding that "[w]hether or not respondent provided . . . a full

written explanation at the administrative level is academic, since it satisfied its burden in the CPLR article 78 proceeding by supplying all of the requested documents to Supreme Court") (internal citations omitted).

I. OAG PROPERLY WITHHELD RESPONSIVE RECORDS PURSUANT TO THREE FOIL EXEMPTIONS.

A. Responsive Records were Properly Withheld Pursuant to the Law Enforcement Exception in FOIL § 87(2)(e)

Records that are "compiled for law enforcement purposes" are excepted from disclosure if the disclosure of such records would, *inter alia*, "interfere with law enforcement investigations or judicial proceedings." FOIL § 87(2)(e). Indeed, the "purpose of [FOIL] is not to enable persons to use agency records to frustrate pending or threatened investigations nor to use that information to construct a defense to impede a prosecution." *Fink*, 47 N.Y.2d at 572. Therefore, records that were "compiled with law enforcement purposes in mind . . . are exempt from disclosure if their release would enable individuals to frustrate pending or prospective investigations or to use that information to impede a prosecution." *Matter of Madeiros v. New York State Educ. Dep't.*, 133 A.D.3d 962, 965 (3d Dep't 2015) (internal quotation marks and citations omitted).

In *Matter of Madeiros*, the Third Department concluded that the State Education Department properly redacted documents pursuant to the law enforcement exception, noting that "[i]nasmuch as the redacted portions would indeed reveal to 'unscrupulous [providers] the path that an audit is likely to take and alert[ ] them to items to which investigators are instructed to pay particular attention,' we agree . . . that they are 'compilations of investigative techniques exempt from disclosure.'" *Madeiros*, 133 A.D.3d at 965 (citations omitted) (alteration in original). Similarly, in *James, Hoyer, Newcomer, Smiljanich & Yanchunis P.A. v. New York*, the

New York County Supreme Court held that certain records associated with OAG's investigation of student loan lenders were properly withheld by OAG pursuant to the law enforcement exception, even though OAG had settled with the requesting entity. No. 114184/2009, 2010 N.Y. Misc. LEXIS 1045, *** 19 (Sup. Ct. N.Y. Cnty., Mar. 31, 2010). The court explained that the requested records should not be disclosed, finding that disclosure could reveal OAG's investigative strategy and could therefore be misused by current or future targets to stymie detection and prosecution. *Id*; s*ee also Lesher v. Hynes*, 19 N.Y.3d 57, 67-68 (2012) (upholding denial of access to records relating to a pending criminal investigation because "the correspondence was 'replete with information about the crimes committed,' and so its release posed an obvious risk of prematurely tipping the [government's] hand").

As set forth in the Srolovic Affirmation, OAG has been conducting an investigation of Exxon since 2015, pursuant to its role as the chief law enforcement agency of New York, and its broad authority to investigate potential violations of New York's business, securities, and consumer fraud statutes. *See* N.Y. Exec. Law § 63(12), N.Y. Gen. Bus. Law §§ 349, and 352-359-h; Srolovic Aff. ¶ 2. Moreover, if it determines that Exxon has violated any of these laws, OAG anticipates bringing enforcement litigation, if the OAG is unable to resolve these violations with Exxon. (Srolovic Aff. ¶ 3.)

In the course of its investigation, OAG has compiled a substantial number of records, reflecting OAG attorneys' legal research and analysis, their ideas and opinions concerning the investigation, the information OAG has already obtained and the information it is seeking. (*Id.* ¶ 5.) Additionally, OAG attorneys and staff members communicate with outside organizations and individuals to obtain information relevant to the investigation that OAG considers when formulating its overall investigative strategy. (*Id.* ¶ 7.) Finally, OAG communicates directly with

Exxon attorneys and these communications reflect OAG's areas of particular focus in its investigation. (*Id.* ¶ 8.).

Because the foregoing records were compiled pursuant to OAG's broad law enforcement authority and because the investigation is ongoing, disclosure of these documents would interfere with the investigation and impair OAG's law enforcement functions. (*Id.* ¶¶ 5-8) By disclosing these records, there is an "obvious risk of prematurely tipping the [OAG's] hand." *Lesher,* 19 N.Y.3d at 67-68.

E&E baselessly claims that OAG is not engaged in a "legitimate law enforcement investigation" and that unspecified public records and records disclosed by Attorneys General of other states purportedly show that OAG's investigation of Exxon is a part of a "political coalition pursuing political dissent and free speech by both corporations and individuals." (Petition, ¶¶ 15, 29.) E&E offers no legal or factual support for its claim. It cites no statutory or other authority for the proposition that FOIL § 87(2)(e) does not apply when a FOIL requester questions the genuineness of the investigation. Moreover, even if that exception existed, there is no factual basis to support such an exception here. E&E claims that two documents that it is has received from other state Attorneys General "but withheld by New York further demonstrate the impropriety of the Attorney General's response." (Petition, ¶ 22 and n. 3.) These documents do not bear on the applicability of the statutory exception at all, and the suggestion that they were wrongfully withheld by OAG is utterly without merit. E&E requested responsive records from January 1, 2015 through December 31, 2015 for the March Request, (Petition, Ex. 1) and responsive records from March 30, 2016 through May 5, 2016 for the May Request. (Petition, Ex. 5, Jerry Aff. ¶ 15 and Ex. C to the Jerry Aff.) The documents that E&E cites are dated March

21, 2016 and March 24, 2016 and therefore, are not responsive because they do not fall within either requested date range. (Jerry Aff. ¶ 24 and Ex. F to the Jerry Aff.)

E&E also misplaces its reliance on certain email correspondence, which was produced in the OAG's response to the May Request. (Petition, ¶ 21.) E&E claims that in the correspondence, OAG suggested that "one of the activists mislead a reporter about whether the activist had in fact briefed several attorneys general and other activists on March 29, 2016 about investigating opponents of the climate agenda." (*Id.*) Contrary to E&E's characterization, there was no suggestion whatsoever to mislead anyone – rather, the suggestion was to maintain the confidentiality of the discussion, which is consistent with an appropriate effort to maintain the confidentiality of a confidential investigation. In any event, the correspondence is not probative to whether OAG properly withheld responsive documents.

Because OAG is currently engaged in a lawful investigation of Exxon pursuant to New York statutory authority, responsive records, which were compiled pursuant to this investigation, and whose release would interfere with that investigation, are excepted from disclosure pursuant to FOIL§ 87(2)(e).

B. Responsive Intra-Agency Documents Were Properly Withheld Pursuant to FOIL § 87(2)(g).

Inter-agency and intra-agency materials are excepted from disclosure, unless the materials are "statistical or factual tabulations or data," "instructions to staff that affect the public," "final agency policy or determinations," or "external audits." FOIL§ 87(2)(g). *See Gould*, 89 N.Y.2d at 276 ("under a plain reading of section 87 (2) (g), the exemption for intra-agency material does not apply as long as the material falls within any one of the provision's four enumerated exceptions").

Here, the vast majority of the responsive records were electronic communications exclusively between OAG-employees that are not statistical or factual data, instructions to staff, which affect the public, final agency policy or determinations, or external audits. (Jerry Aff. ¶¶ 11, 20.) While many communications are brief, these communications are still properly withheld pursuant to the intra-agency exemption, as the exemption does not require that the communications be "formal, lengthy or profound policy discussions." *New York Times Co. v. City of New York Fire Dep't*, 4 N.Y.3d 477, 488 (2005).

C. Privileged Documents Exempted by State Statute - FOIL § 87(2)(a)

An agency may withhold records that "are specifically exempted from disclosure by state or federal statute." FOIL § 87(2)(a).

i. Attorney-Client Communication

CPLR § 4503(a) protects attorney-client communications from disclosure and accordingly, such communications are exempt from disclosure under FOIL. *See also Matter of Morgan v. New York State Dep't of Envtl. Conservation*, 9 A.D.3d 586, 587 (3d Dep't 2004). The purpose of the attorney-client privilege is to "encourage full and frank communication between attorneys and their clients." *Upjohn Co. v. United Sates*, 449 U.S. 383, 389 (1981). It is well-settled that "preliminary discussions between an attorney and a prospective client are subject to the attorney client privilege." *Fierro v. Gallucci*, No. 06-CV-5189, 2007 U.S. Dist. LEXIS 89296, * 17 (E.D.N.Y. Dec. 4, 2007). *See also Newmarkets Partners, LLC v. Sal. Oppenheim Jr. & Cie. S.C.A.*, 258 F.R.D. 95, 100 (S.D.N.Y. 2009) (explaining that an "attorney-client relationship can arise prior to formal engagement"). The attorney-client privilege may still apply even if the attorney is not retained. *See United States v. Dennis*, 843 F.2d 652, 656 (2d Cir. 1988) ("initial statements made while Pilgrim intended to employ Gerace were privileged

even though the employment was not accepted") and *Newmarkets,* 258 F.R.D. at 100 ("privilege may attach to a prospective client's 'initial statements' to an attorney who is not ultimately hired").

Here, OAG attorneys and staff members communicated with an attorney outside the OAG during the initial stages of the OAG's investigation. Srolovic Aff. ¶ 9. Although the OAG has not retained this attorney, such communications provided legal advice and were "reasonably understood . . . to be confidential." *Dennis*, 843 F.2d at 657; Srolovic Aff. ¶ 9. Disclosure of these communications would hamper OAG's investigation and would discourage "full and frank communication" in the course of seeking legal advice – contrary to the purposes of FOIL. *See Upjohn,* 449 U.S. at 389 and *Fierro,* 2007 U.S. Dist. LEXIS 89296 at * 17.

Additionally, several documents withheld from the May Request are also shielded from disclosure because these documents contain litigation hold notices. *See* Exhibit G to Jerry Aff. It is well-settled that litigation hold notices "are not discoverable" as their contents are "protected under attorney-client privilege or the work-product doctrine." *Major Tours, Inc. v. Colorel*, No. 05-3091, 2009 U.S. Dist. LEXIS 68128, *6-7 (D.N.J. Aug. 4, 2009) (collecting cases). *See also Gordon v. City of New York*, No. 14 Civ. 6115, 2016 U.S. Dist. LEXIS 91035, *4-5 (S.D.N.Y. July 13, 2016) (finding that "communications concerning the preservation and collection of documents relevant to this case . . . are work product" and "[a]bsent a showing of compelling need," the documents "need not be produced").

Therefore, these documents, which are protected by the attorney-client privilege, are exempt from disclosure under FOIL.

ii. Attorney Work Product

Although it appears that E&E does not assert a claim related to records withheld as attorney work product, even assuming that it did, any such challenge would have been meritless. CPLR § 3101(c) provides that the "work product of an attorney shall not be obtainable." Because "attorney work product is privileged under the CPLR [it is] therefore exempt from disclosure under FOIL." *Matter of Carvel v. Office of New York State Attorney General*, No. 103915-2011, 2012 N.Y. Slip Op 32651(U), at *8 (Sup. Ct. N.Y. Cnty. Oct. 11, 2012). *See also Morgan*, 9 A.D.3d at 587.

Attorney work product includes "materials which are uniquely the product of a lawyer's learning and professional skills, such as materials which reflect his legal research, analysis, conclusions, legal theory, or strategy." *Acwoo Int'l Steel Corp. v. Frenkel & Co.*, 165 A.D.2d 752, 752 (1st Dep't 1990) (internal quotation marks, citation, and alteration omitted). "Such material may consist of interviews, statements, memoranda, correspondence, briefs, mental impressions, personal beliefs, and countless other tangible and intangible things." *Id.* (internal quotation marks and citations omitted).

Here, as part of its investigation, OAG attorneys have generated a significant amount of material reflecting their legal research, analysis, conclusions, and legal theories or strategies. Srolovic Aff. ¶ 5. These documents, which are privileged under CPLR § 3101(c), are exempt from disclosure pursuant to FOIL. *See James*, 2010 N.Y. Misc. LEXIS 1045, *** 37 (finding records that were "prepared in response to an ongoing governmental investigation" were exempt as attorney work product).

CONCLUSION

For the foregoing reasons, the Office of the Attorney General's determinations upholding the withholding of responsive records pursuant to FOIL§§ 87(2)(a), (e), and (g) should be affirmed. The Petition should be denied in in its entirety and the Article 78 proceeding should be dismissed.[6]

Dated: New York, New York
December 22, 2016

Respectfully submitted,

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Attorney General of the State of New York
Attorney for Respondent
By:

/s/ Abigail Rosner
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[6] E&E demands attorneys' fees pursuant to FOIL § 89(4)(c), which authorizes the Court to award reasonable attorneys' fees where the requester has "substantially prevailed" and "the agency had no reasonable basis for denying access." At this stage in the proceedings, the claim for fees is not ripe and OAG reserves its rights and defenses to address this issue at the appropriate time.

Exhibit S40

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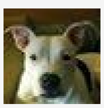

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Exhibit S41

IN THE VERMONT SUPERIOR COURT
WASHINGTON COUNTY CIVIL DIVISION

ENERGY & ENVIRONMENT LEGAL INSTITUTE, Plaintiff,	) Case No. 558-9-16 Wncv) Montpelier, Vermont
-against-	) March 28, 2017) 1:05 PM
ATTORNEY GENERAL OF VERMONT, Defendant.	)

TRANSCRIPT OF ORAL ARGUMENT

BEFORE THE HONORABLE MARY MILES TEACHOUT,
SUPERIOR COURT JUDGE

APPEARANCES:

MATTHEW D. HARDIN, ESQ.
Attorney for the Plaintiff

WILLIAM E. GRIFFIN, ESQ.
Attorney for the Defendant

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(Proceedings convened at 1:05 PM)

THE COURT OFFICER: All rise.

THE COURT: Please be seated.

THE COURT OFFICER: The matter before the Court is docket number 558-9-16 Wncv. Plaintiff Energy & Environment Legal Institute represented by Attorney Hardin. Defendant Attorney General of the State of Vermont represented by Attorney Griffin.

THE COURT: Good afternoon.

MR. MATTHEW HARDIN: Good afternoon.

THE COURT: We're here for oral argument on the pending motion for summary judgment. I've reviewed your arguments. This is your opportunity to emphasize points that you'd like to make. I have a few questions, but start with your own --

MR. GRIFFIN: Thank you, Your Honor.

THE COURT: -- presentation.

MR. GRIFFIN: So I'd like to start with a brief colloquy because I think it shows the arguments that the parties have made in the proceedings before today.

This started with a request for records made by the Energy Institute -- Environment Institute. They asked for records relating to a common interest agreement: an agreement between the Attorney General of Vermont and the attorney general in other states. That's attached to the -- attached

to the complaint: attachment 1.

That request was reviewed and denied by an Assistant Attorney General Melanie Kehne. She cited two statutes that protected the information that was requested: a section in Title 3, Section 317(b)(3). (B)(3) covers different ethical standards, including the Vermont Rules of Professional Conduct. And in particular, she cited Rule 1.6 Rules of Professional Conduct. That's the rule that provides for the confidentiality -- that protects the confidentiality of client information.

She also cited 317(b)(4), another subsection. And that section protects and applies common law privileges. And in particular, she cited the attorney-client privilege and also the work product privilege.

There was an appeal as provided by the Access to Records Act. The appeal went to the Deputy Attorney General who was then Susanne Young.

The appeal challenged only the Subsection (b)(4) claim, the attorney-client privilege. It did not challenge the assertion of the (b)(3) protection; the Rule 1.6, the ethical rule.

That appeal letter is also attached to the complaint. It's attachment 3 dated August 17th.

The Deputy Attorney General reviewed the appeal and issued a written decision which is attached to the complaint:

attachment 4. She affirmed the decision and, with respect to the matter that was appealed, the (b)(4) exemption. She also pointed out that the -- that the assistant attorney general had cited (b)(4) and she -- she meaning the Deputy Attorney General -- indicated that that was a second ground for exempting a document.

So at that point, the plaintiff filed a complaint in this court. The exit complaint itself made a reference to Rule 1.6, but the gist of the complaint focused on the attorney-client privilege matter, the (b)(4) exemption.

The State -- on December 7, the State filed this motion for summary judgment. In that motion, we argued both subsections in the Access to Records Act in both (b)(3) and (b)(4). We argued that Rule 1.6 applied because this was information relating to the representation of a client. The Attorney General's representation of the State of Vermont. And we also argued the (b)(4) exemption -- the attorney-client exemption.

THE COURT: Just one little detail. I think you've been referring to (b) all the way along.

MR. GRIFFIN: Yes.

THE COURT: I don't have the statute right here, but the other citations are 317(c).

MR. GRIFFIN: What'd I do? Get -- oh, (c). Yeah.

THE COURT: (3) and (4).

paragraph 1 where the Attorney General of Vermont and the attorneys general of other states identify the legal interests. And there are five interests identified. And item 1 is potentially taking legal actions. Item 2 is potentially conducting investigations. Item 3 is potentially conducting investigations of illegal conduct. 4 is legal action contemplating legal action to obtain compliance with state and federal laws relating to energy infrastructure. And item 5 is another example of litigation.

THE COURT: Right. But you're --

MR. GRIFFIN: So it's core legal action; it is not political action.

THE COURT: That is what the agreement says, but your argument is that the exemption that you're relying on is really much broader than that. It's that the Attorney General's Office is, as the State of Vermont is a client; therefore, anything with the Attorney General's Office does or has in its possession is exempt from the Public Records Act unless you choose to reveal it. I understand that that's your argument.

MR. GRIFFIN: That is correct, and it's because we're a law office by statute, by the people we employ who are lawyers and people who support -- who support legal actions and legal investigation, and if anyone could come in randomly -- let me give one example. So someone -- big

business, small business gets information that the Attorney General's Office may be -- may be looking at a consumer fraud or a securities fraud problem. They consult with an attorney. You know, I've got rumors someone's talking to someone; I think the Attorney General is looking at it. So what can they do? Then they can make a public records request. Send us every email that -- or correspondence that mentions the X, Y, Z Corporation. The information we might have would be consultation with witnesses, emails within the office, maybe communications with witnesses, maybe -- maybe public information that we'd be gathering financial records, SEC filings relating to a corporation. And if potential adversaries in litigation or in negotiations have access to all that information, which we -- we, the people -- we, the State of Vermont would not be able to obtain with respect to folks on the other side of the table. It would put the public and the state at a tremendous disadvantage.

THE COURT: Well, that leads me to the question I have related to the specific request here.

MR. GRIFFIN: Okay.

THE COURT: And the rationale for the common interest agreement shield had to do with protecting mental impressions and strategies and things like that.

MR. GRIFFIN: Right.

THE COURT: But the plaintiff here has argued that

they're not asking for that. They're only asking for -- not for the content -- as I understand it, not for the content of what communications were, but whether or not there was a request, whether or not it was denied. And that's without going --

MR. GRIFFIN: So -- so -- so --

THE COURT: -- into the content, or how would any mental impressions be revealed at all under the circumstances?

MR. GRIFFIN: So let's assume that there was a request for a document. That would come to an attorney in the Attorney General's Office. He or she might communicate with others in the office as to whether this would disadvantage the State's interests in some ways. So there would be a mental impression going on there. There would be a responsive mental impression. There might be some legal analysis, if we're doing an investigation or contemplating litigation. How would that --

THE COURT: But if -- let me just give an example. I forgot who all the states are that are a member. Let's just say Virginia. I can't remember if Virginia is or not. Let's just use it as an example. Let's just -- what the plaintiff is asking for is a request by any party to the agreement to share documents, any consent of such sharing and any objection to such sharing. What's the matter with saying Virginia asked for some information under this agreement on October 5th,

2016. Our office objected and did not, in a letter November 1st, and did not share it -- period with no content. I mean, I'm going to be asking, of course, the plaintiff, but the way I read it, it isn't asking for content. It's just asking was there a request? Was consent given or was consent denied? So how would there be any content that would -- deserving of protection under the common interest theory.

MR. GRIFFIN: Let me find their language, if you'd give me a minute here.

So I'm going to the statement of facts, paragraph 3, which I think quotes their -- the plaintiff's request. And it also may be attached to their complaint.

THE COURT: You're right.

MR. GRIFFIN: I think it's attachment 1 to the complaint.

THE COURT: The requests are specifically set forth on page 2 of your statement of facts.

MR. GRIFFIN: Okay. So they want all emails reflecting any request by any party seeking consent to share.

THE COURT: Okay. I see that. Email or text correspondence --

MR. GRIFFIN: So I'm sitting in the Attorney General's Office. We're considering this matter. We're contemplating investigations and other legal action and we get a request from John Smith. Let's put a little more focus on

it. We get a request from EELI and so one thing we might consider is where are they -- who are these people? Where are they going with this? And we Google them and we find, you know, coal or Exxon or whatever -- and so we're thinking this is -- we better -- we better give this some thought before we -- before we share information with this entity. Or it might be a news organization and we think, well, what are they going to do with it? Well, they're going to publish it to the world. So that would be -- I mean, that would be my mental impression and, you know, let's exercise some caution.

Is there some public interest in publishing this information at this time? Probably not. As with a lot of investigations, you like to talk to witnesses, gather information before you announce to the world what -- you know, what options are on the table.

So and again, I -- you know, I, from my own perspective, I sort of turn it around. And if I'm on the other side, if I'm representing a corporation or what have you, and someone comes in and says, you know, I don't want your substantive information; I just want to know who you talked with last October. I want to know if this -- if this phrase is in any of your emails. I mean, they'd laugh out loud, because it's -- one, because it would be an ethical violation for them to publish that information. And why shouldn't the public have the same protection as a corporation

or private citizen.

THE COURT: Thank you.

MR. GRIFFIN: Thank you, Your Honor.

MR. HARDIN: Your Honor, I think there are several issues and I think that the overarching theme that you see, and you pointed it out, is the broadness of the argument that the Attorney General is making, basically, that, under 1.6, everything is confidential, except for things that they selectively choose to disclose. They made that argument in another case, 349, as well.

Everything is exempt except what they choose to disclose, and now they say, because they've taken into consideration the best interests of the State of Vermont. They disclose what they feel like and they don't disclose what they don't feel like. And it's now come out in oral argument that one of the things that they do to determine who's entitled or who they will provide public records to is they do a Google search. And it turns out that, when you Google my clients, you might find out things like coal or Exxon. So my clients don't have rights under the Public Records Act because a Google search conducted by Attorney General's employees says that they're bad people, basically, and I just don't think that's what the law is. I believe that the law is neutral. I believe that it applies to all of the citizenry. And I believe here that Your Honor also pointed out, my clients

didn't ask for substantive information. The same request that was sent in this case was also sent to numerous other states. What they intended to get back was copies of their own requests, because we had sent requests -- my clients had sent requests to numerous states all relating to the same topic; basically, the same request that's at issue in this case was sent to probably ten or twelve states. The other states responded, gave us copies of public records requests that were received by other states, exactly as Your Honor contemplated a moment ago.

There is no substance to this. It's did you receive a request to share? Did you consent or object? And I think that that's something that the citizenry is interested in for a couple of reasons. First, because the common interest agreement, the states say that they're going to either consent or object and so we want to know if they're complying. And in the second case, because we want to know if the State is adopting a de facto attitude that it will never consent. Or if the State is making good efforts to consent where the public has a right to know. What the State is, basically, saying is not only do we not have to provide information responsive to requests, we don't even have to tell you if we have a blanket policy of providing information or not. The State has this incredibly broad argument that everything's exempt.

Now, I think that there are three basic ways to approach this case, any of which we should prevail. I think that one of them we've talked about extensively is the common interest agreement could be considered void as an attempt, basically, by the Attorney General's Office to write themselves out of the statute. To create a contract that lets them get out of the Vermont Public Records Act. You could treat it as void, citing, for example, the New York Court of Appeals in Ambac v. Countrywide, I believe it was.

You could also say that, when information is shared, and all of the information in this request was inherently shared with other states -- shared with New York, among other states -- but it was inherently shared -- everything in this request was already shared outside the Vermont Attorney General's Office. You could also say that, when you share it, you waive whatever confidentiality interest there is, especially, for example, when you share that information with the state where you know the courts have already declined to enforce the common interest agreement such as New York. So you could say that the common interest agreement is void in Vermont. You could take a narrower approach and say that it doesn't cover instances where you have shared the information voluntarily with a party that you know cannot keep it confidential. And the narrowest argument that this Court could rule on is that the common interest agreement and

confidentiality and the common law exemptions under the law just simply don't apply to the information that was requested in this case.

So you could say the common interest agreement is invalid always. You could say it's invalid as applied to the information that's already been shared with New York, or you could just say, you know, it doesn't cover -- confidentiality doesn't cover, the common interest agreement doesn't cover the information at issue in this case, which is not substantive, but just consents and objections.

THE COURT: So in your memo on page 10 you said, specifically, plaintiff sought request by any party to the agreement to share documents and a consent to such sharing and any objection to such sharing.

MR. HARDIN: That's correct, Your Honor.

THE COURT: Used as the basis for the question I asked --

MR. HARDIN: Right.

THE COURT: -- Mr. Griffin, but he pointed out that your actual request starts off with "we hereby request copies of all email or text correspondence, attachments, and any other document, recording, reflecting, discussing or mentioning" -- it's much broader than just was there a request, was it -- was there consent or was there objection.

MR. HARDIN: Well, I'll have two responses to that.

And the first response that I have is our experience in other states. Basically, what they would do is they would forward a request by email and they would say we received this request. Do you consent or object? And so that's what we meant by that.

THE COURT: And so --

MR. HARDIN: And that's outside the --

THE COURT: -- but that email request did include specific content information --

MR. HARDIN: Well --

THE COURT: -- about what was being requested.

MR. HARDIN: Well, the second argument that I'll make is that that could be solved by redaction of anything they believe is confidential. And also what we received is a blanket denial, both in the administrative process and in this court. So if, for example, the Attorney General's Office says that the request is not how I, myself, interpreted it, but is more broad and encompasses more information, they could provide the information that is not exempt and redact the rest or deny the rest. But that's not the position that they've taken. They've said that everything we requested is exempt under the law. So that's why I come back to the same fundamental argument: the Attorney General's Office, essentially, wishes that it were exempt as a blanket matter from the Vermont Public Records Act, but that's not -- that's

Exhibit S42

POLITICS

Vermont faces new suit for emails from private account

By **Morgan True**

Aug 7 2017 4 comments

Vermont Attorney General William Sorrell speaks in 2016. File photo by Erin Mansfield/VTDigger

Washington-based nonprofit is deepening its legal feud with Vermont over public records, filing a new lawsuit Monday that seeks supposed private emails between Vermont's former attorney general and the New York attorney general.

A

The Energy & Environment Legal Institute has brought a handful of lawsuits in Vermont and New York seeking records related to what the group describes as a "cabal among activist attorneys general" in a case involving oil giant Exxon Mobil.

RELATED STORIES

- Judge: Sorrell must sit for deposition in public records case
- Responding to records release order, AG says there are no records
- Vermont faces new suit for emails from private account
- Vermont attorney general must release records
- Vermont Attorney General justifies broad denial of records

Those allegations stem from the two states' involvement with a Climate Change Coalition of 19 states that considered investigating Exxon Mobil over allegations it hid research about the connection between fossil fuel consumption and global warming, and therefore deceived investors and the public.

The latest suit was brought after litigation revealed that New York Attorney General Eric Schneiderman also used a private Gmail account, according to Matthew Hardin, an attorney for the Energy & Environment Legal Institute.

Vermont denied an initial public records request and subsequent appeal for any private email communications between Schneiderman and former Attorney General William Sorrell, saying it was not the custodian of records on Sorrell's private Gmail account, according to the new lawsuit.

A similar public records request in New York is being appealed and will likely land in court as well, Hardin said.

"The public should care about this because these officials are communicating on Gmail basically to avoid transparency," Hardin said.

Sorrell has denied using his Gmail account to avoid public scrutiny. In a recent interview, Sorrell told VTDigger that he never sought to circumvent the state public records law by using his private account. He said he forwarded any work-related emails on his private account to his state email account.

"If this group thinks I am part of a cabal of liberal AGs who believe climate change is real and greenhouse gas emitters bear responsibility, I am of that view, but there was never any conspiratorial attempt to use private email," Sorrell said. Sorrell did not return a call seeking further comment Monday.

TJ Donovan, Vermont's current attorney general, said his office has reviewed instances where Sorrell followed the practice he described of forwarding emails from his private account to his public one.

Before searching for or releasing records from any private account, Donovan said he will **wait for a Vermont Supreme Court ruling on the issue**. That ruling, in a case that also stems from the use of private email by Sorrell and other employees in the attorney general's office, is expected to provide clarity on when and whether the state must search personal email accounts for communications that may be public record. Donovan said he also expects state lawmakers to tackle the issue during the upcoming legislative session.

TJ Donovan. File photo by Morgan True/VTDigger

"Going through this process can be aggravating," Donovan said of the lawsuits from E&E Legal Institute and others. "But at the end of the day, if we have clarity from the Supreme Court and clarity from the Vermont Legislature, that's going to be better for Vermont."

E&E Legal Institute initially sued Vermont after a previous request for records was denied. That request sought records related to an agreement between Vermont and New York, whereby the two states' attorneys

general sought to shield their communications as they explored the allegations against Exxon Mobil.

Washington Superior Court Judge Mary Miles Teachout **ruled for E&E Legal Institute in that case**, rejecting the Vermont attorney general's argument that the records could be withheld because they are protected by attorney-client privilege — the client in the case being the state of Vermont.

In her ruling, Teachout said exemptions to the public records law may be claimed, enabling government officials to deny or redact records, but those exceptions must be interpreted narrowly. Attorney-client privilege, she wrote, may not be extended to the administrative and operational functions of state government.
The ruling gives Vermont 30 days from when it was issued July 27 to appeal or turn over the records pertaining to the common interest agreement with New York. Donovan said his office is preparing records to turn over to E&E Legal.

In a separate lawsuit, the group is seeking other communications between Vermont and New York relating to the abortive Exxon Mobil probe. Some of those records are on Sorrell's private Gmail account, according to Hardin.

Sorrell did not seek re-election in 2016 after serving as Vermont's attorney general for 20 years. Donovan's office argued that it could not release records from Sorrell's Gmail account because he was no longer a public official.

In that case, Teachout ruled that Sorrell could be added as a defendant. Further, she ruled that Sorrell must answer questions under oath in a deposition about his email and public records practices while attorney general.

In a Monday news release, E&E Legal Institute also raised questions about whether the Vermont attorney general's office is representing Sorrell in the ongoing legal battle.

The group provided emails in which its Vermont attorney, Brady Toensing — a high-profile Republican who brought the public records case now before the Supreme Court — tried to send legal filings to Sorrell. The Democratic former attorney general responded with what E&E Legal described as a "cease and desist order."

"Mr. Toensing, Unless and until future notice otherwise, please communicate with me only through Bill Griffin," Sorrell wrote to Toensing in an Aug. 1 email. William Griffin is the chief assistant attorney general, who has defended Vermont in the E&E Legal cases.

Hardin said a plaintiff's attorney is not allowed to contact a defendant directly if the defendant has an attorney. Such contact could lead to disbarment, he said.

Toensing responded by forwarding Sorrell's message to Griffin, along with the message: "Dear Bill — Please see the email below and advise how we should proceed. Is the state now representing Mr. Sorrell in this matter?"

Griffin responded Aug. 2 saying, "The (attorney general's office) is consulting with Mr. Sorrell about your lawsuit against him. If you have a message for Mr. Sorrell, you can send it to the AG's Office, to my attention. However, the AGO has not been authorized to accept service of process on Mr. Sorrell's behalf."

Donovan said statute would allow the state to represent Sorrell in his capacity as attorney general. "Whether or not the AG's office represents him is still being discussed," Donovan said.

Hardin blasted how the state is handling the situation: "Vermont's current attorney general is the lawyer protecting former AG Sorrell's work-related Gmails from public disclosure, and apparently also from compelling Sorrell to turn over to the government and to the public the very records that he created in the use of a taxpayer-funded office. This is not how a transparent government operates and the people of Vermont deserve better," he wrote in the news release.

This is not the first time Sorrell's use of his personal Gmail account has led to legal troubles for the former attorney general and Vermont. The public records case currently before the Vermont Supreme Court, which is expected to provide greater clarity on the search of private email accounts for public records, also stems from Sorrell's use of his Gmail account.

In 2015, while under investigation by an independent counsel on suspicion of campaign finance violations and allegations of giving a law firm a state contract in return for a campaign contribution, Sorrell released emails from his personal Gmail account to show

that a news conference about high gas prices in Chittenden County was work-related and not a campaign event.

The independent counsel **cleared Sorrell of any campaign finance violations** but declined to weigh in on the "pay to play" allegations, saying those were beyond the scope of the investigation.

In his case for searching private email accounts for public records, Toensing cited Sorrell's use of his personal Gmail account in the records released to the independent counsel.

That is the case now before the Supreme Court.

RELATED STORIES

- **Judge: Sorrell must sit for deposition in public records case**
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- **Vermont Attorney General justifies broad denial of records**

Filed under:
POLITICS
Tags: public records, TJ Donovan, Vermont attorney general, Vermont Supreme Court, William Sorrell

About Morgan

Morgan True is VTDigger's Burlington bureau chief covering the city and Chittenden County. A Seattle native, he graduated from Boston University with a Bachelor of Science in Journalism before working for several publications in Massachusetts. He came to VTDigger in December 2013 from The Brockton Daily Enterprise, where he covered government, schools and hospitals in a city of about 100,000 people. Before joining The Enterprise, he worked for The Associated Press in Concord, N.H., where he served as a relief reporter in the Statehouse. He previously worked for The Quincy (Mass.) Patriot Ledger and as an intern at the Worcester (Mass.) Telegram & Gazette.

Email:
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Exhibit S43

ENERGY

Former AG Fails To Appear For Court-Ordered Testimony On Role In A Climate Crusade

CHRIS WHITE (http://dailycaller.com/author/chris-white/)
Energy Reporter (http://dailycaller.com/author/chris-white/)

7:04 PM 10/04/2017

A federal judge ordered a former Vermont attorney general to testify about his use of private emails in an investigation targeting oil producers after the Democratic official refused to appear in court for a deposition hearing addressing the probe.

Judge Mary Teachout, who serves on the Vermont Superior Court, issued an order Wednesday denying former Democratic Attorney General William Sorrell's request to dismiss a court-ordered deposition. Sorrell failed to appear in court for testimony about the existence of private emails he reportedly used during the Exxon probe.

"Today's 'dodge and weave' behavior by William Sorrell … strongly suggests there is indeed much more embarrassing and quite possibly illegal contained (sic) in the records we seek," E&E Legal President Craig Richardson said in a press statement. His group has been involved in a nearly year-long quest to obtain emails about the Exxon case that Sorrell has allegedly tried to keep private.

Sorrell has attempted several legal maneuvers to avoid appearing in court to explain his role in the Exxon probe. He has tried similar tactics to avoid disclosing emails E&E Legal believes exist tying Sorrell with New York Attorney General Eric Schneiderman, a Democrat, who originally orchestrated the probe last November.

E&E Legal obtained documents earlier this year that indicate Schneiderman used private emails during his Exxon investigation. The group explained in court documents (https://iapps.courts.state.ny.us/fbem/DocumentDisplayServlet?documentId=ox3ppzOBJxsEGwV3Bc11Kw==&system=prod) in June that the crusading lawman submitted a privilege log of correspondence containing the email account. A judge recognized the account was used after a private review of the log.

The group pursuit began in full after Schneiderman invited two prominent environmental activists to give presentations (http://eelegal.org/wp-content/uploads/2016/04/Development-of-Agenda.pdf) last March to a group of state prosecutors about "climate change litigation" and the "imperative of taking action now on climate change."

Activists gave the presentations on the same day Schneiderman began condemning Exxon (http://www.washingtonexaminer.com/gore-launches-climate-comeback/article/2587118?custom_click=rss) for "fraud" and "deceiving the American people." The New York Democrat would eventually go on to investigate if Exxon had worked for decades to hide knowledge about the impact of climate change on the company's financial health.

Vermont's attorney general office did not respond to The Daily Caller News Foundation's request for comment.

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Tags: Eric Schneiderman (http://dailycaller.com/buzz/eric-schneiderman/), Vermont (http://dailycaller.com/buzz/vermont/), William Sorrell (http://dailycaller.com/buzz/william-sorrell/)

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Exhibit S44

Retired Vermont AG deposed in public records case

Oct. 23, 2017

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More from **Vermont Attorney General's Office**

MONTPELIER, Vt. (AP) — The attorney for a group seeking access to public records that could be contained in the private email account of retired Vermont Attorney General William Sorrell said Monday that Sorrell refused to answer 95 percent of the questions posed to him.

Matthew Hardin, of the Washington-based Energy and Environment Legal Institute, said he didn't feel Sorrell complied with a judge's order to answer questions about whether public records could exist in the private email account.

"He refused to answer any questions of substance," Hardin said Monday after what he said was a 90-minute deposition that is part of his group's effort to learn if Sorrell was working with other attorneys general as part of a coordinated investigation into ExxonMobil.

Sorrell referred questions about the deposition to the Vermont attorney general's office, which is representing him. Attorney General T.J. Donovan said it's not unusual for people not to answer all questions during a deposition.

"The scope of the deposition was fairly limited and narrow. ... I think the attorney general complied with that request," Donovan said.

Both Hardin and Donovan said the legal group could ask a judge to order Sorrell to be questioned further.

The Energy and Environment Legal Institute, which describes its mission as "free-market environmentalism," has said it is trying to determine whether Sorrell conspired with other Democratic attorneys generals to conduct a politically motivated investigation into Exxon Mobil's position on climate change.

Last week, Vermont Superior Court Judge Mary Miles Teachout ruled that Sorrell could be required to answer questions that could determine if any public records were contained in his private emails.

Exhibit S45

From:	Peter Washburn <Peter.Washburn@ag.ny.gov>
Sent:	Wednesday, April 13, 2016 3:31 PM
To:	Allen Brooks; Amy Winn; William Grantham; Christopher Courchesne; Dennis Ragen; Elizabeth Wilkins; Greg Schultz; James Gignac; Jerry Reid; John Daniel; Josh Auerbach; Karen Olson; Laura Watson; Leslie Seffern; Linda Singer; Matthew Levine; Melissa Hoffer; Paul Garrahan; Ralph Durstein; Rhodes Ritenour; Robert Snook; Kline, Scot; Tam Ormiston; Tania Maestas; Tannis Fox; Tim Nord; Morgan, Wendy
Cc:	Lemuel Srolovic; Monica Wagner; John Oleske; Michael J. Myers; Mandy DeRoche
Subject:	RE: Heads up

[Redacted]

http://insideclimatenews.org/news/13042016/climate-change-global-warming-oil-industry-radar-1960s-exxon-api-co2-fossil-fuels

CO2's Role in Global Warming Has Been on the Oil Industry's Radar Since the 1960s

By Neela Banerjee, John H. Cushman Jr., David Hasemyer and Lisa Song

The oil industry's leading pollution-control consultants advised the American Petroleum Institute in 1968 that carbon dioxide from burning fossil fuels deserved as much concern as the smog and soot that had commanded attention for decades.

Carbon dioxide was "the only air pollutant which has been proven to be of global importance to man's environment on the basis of a long period of scientific investigation," two scientists from the Stanford Research Institute (SRI) told the API.

This paper, along with scores of other publications, shows that the risks of climate change were being discussed in the inner circles of the oil industry earlier than previously documented. The records, unearthed from archives by a Washington, D.C. environmental law organization, the Center for International Environmental Law (CIEL), reveal that the carbon dioxide question—an obscure corner of research for much of the 20th century—had been closely studied since the 1950s by some oil company researchers.

By the 1960s, the CO2 problem was gaining wider scientific recognition, especially as President Lyndon B. Johnson's science advisers and leading experts brought it to the attention of the White House in 1965.

"If CO2 levels continue to rise at present rates, it is likely that noticeable increases in temperature could occur," SRI scientists Elmer Robinson and R.C. Robbins wrote in their 1968 paper to API.

"Changes in temperature on the world-wide scale could cause major changes in the earth's atmosphere over the next several hundred years including change in the polar ice caps."

Ten years later, the world's leading oil company, Exxon, would launch an ambitious in-house research program into the emerging science of climate change, as detailed by InsideClimate News last year in an investigative series. Beginning in 1978, Exxon researchers hoped their work would identify the risks climate change posed to the company's business and earn it a seat at the table when policymakers moved to limit CO2 emissions, according to internal documents. By the late 1980s, the company and its allies would instead challenge the scientific basis for strong action on climate change.

In a new series of articles, ICN begins to examine how the industry confronted pollution concerns during the infancy of climate research in the mid-20th century. It is based on hundreds of public documents assembled by CIEL, along with others gathered by ICN.

The documents trace early academic research into rising carbon dioxide levels. They show how the oil industry monitored that published work, and help explain the beginnings of its own research. They also show how industry's reaction to mid-century regulation to curtail other forms of air pollution, such as smog, helped shape its approach toward the risks of carbon dioxide.

The documents reveal a deep and persistent interest by industry in the CO2 issue, according to Carroll Muffett, a lawyer who is president of CIEL. If it is shown that oil companies knew fossil fuels posed dangers to the public, he said, the industry might become vulnerable to product liability complaints.

"From a products liability perspective, these documents raise potential claims that oil companies failed to warn consumers about a potentially serious risk linked to their products," he said.

Muffett's institute, an advocacy group that provides policy research and legal counsel on energy and environmental matters, is releasing its findings just as several state attorneys general have begun investigating how much oil companies knew about climate change and what they decided to do with their knowledge.

"Once the companies learned this science, they can't unlearn it," Muffett said. "Everything they did after this is done against the backdrop of the information they have from at least the 1950s onward.

"This to me is a critical point," he said. "When Exxon and other companies are funding climate change denial in later stages and focusing on uncertainties, how does what they are saying now compare with what they knew at a much earlier stage?"

Exxon has responded that its scientists at the time found that "many important questions about climate change remained unanswered and more research was needed." A spokesman for API did not respond to requests for comment.

Pollution Concerns Begin Rising

By the late 1940s, industrial pollution from the wartime surge and post-war boom began alarming the public. In particular, smog increasingly plagued Los Angeles, garnering the attention of the press and new pollution-control agencies. The sky turned a pale yellow, residents routinely became nauseous and their eyes burned, children were forced to play indoors, and acres of crops withered.

By the early 1950s, new science pointed to the oil industry as a major culprit, showing that nitrogen oxide emissions and uncombusted hydrocarbons from car tailpipes and refineries formed smog when exposed to sunlight.

As new agencies spawned new regulations, API and similar organizations set up a task force called the Smoke and Fumes Committee to monitor air pollution research and to commission projects by a handful of key consultants, including SRI. Originally affiliated with Stanford University, it was the industry's main pollution consultant, and eventually became an independent firm in 1970.

The work of the Smoke and Fumes Committee armed the industry for a prolonged struggle against what it considered overzealous regulation, which was based on what the oil companies and SRI called flawed science.

Meanwhile, a growing number of academics had turned their attention to rising CO2 concentrations in the atmosphere, tracing where the gas came from and the role that certain "sinks," such as the oceans and forests, played in absorbing it.

Roger Revelle, the director of the Scripps Institution of Oceanography, and his colleague Hans E. Suess published a landmark paper in 1957 about increasing CO2 emissions and the role of the oceans in absorbing some of it. The media, including The New York Times and Time magazine, sporadically wrote stories about increasing CO2 in the atmosphere.

Scripps scientist Charles David Keeling installed machines at the Mauna Loa Observatory in Hawaii to measure carbon dioxide levels on a regular basis.

The years between 1957, when Revelle first concluded that the oceans would not absorb all industrial CO2 emissions, and 1960, when Keeling accurately measured atmospheric concentrations and showed that they were definitely increasing, ushered in a new age of expanding climate research.

Already, some oil company scientists were conducting basic CO2 research, including several with Humble Oil, which eventually became part of Exxon.

By then, it was generally accepted that the burning of fossil fuels had released significant quantities of additional CO2 into the atmosphere, with some studies putting manmade emissions at 13 percent above natural levels since the Industrial Revolution began.

Humble's researchers studied the fingerprints of fossil fuel emissions in the wood of growing trees. Only a small fraction of the CO2 from fossil fuels showed up. Deciphering what was happening to the rest—mostly absorption into the oceans—was a major focus of research into the carbon cycle then.

As Humble's scientists explored issues like whether the varying climate in wet and dry conditions might influence the rate of carbon uptake by trees, their work intertwined with the rapidly evolving field of climate studies.

A paper by independent scientists in 1958 determined that Revelle and Suess had probably underestimated how much CO2 would build up by the year 2000. The rise could be enough, they noted in passing, to have considerable implications for planetary warming.

A Presidential Spotlight

The report by Robinson and Robbins to API in 1968 was an unusually plainspoken assessment of the risks of CO2 emissions within the walls of industry. It is significant not as original research, but as confirmation that the industry recognized a consensus reaching the highest levels of government.

"It seems ironic," the report said, "that given this picture of the likely result of massive CO2 emissions so little concern is given to CO2 as an important air pollutant."

The SRI report emerged after the carbon dioxide problem had caught the attention of the White House.

Acting on a warning from his science advisers, Johnson became the first president to publicly mention rising CO2 levels as a problem on par with smog or bomb test fallout. In a message to Congress in February 1965, he declared: "Air pollution is no longer confined to isolated places. This generation has altered the composition of

ıe atmosphere on a global scale through radioactive materials and a steady increase in carbon dioxide through ıe burning of fossil fuels."

RI's report was mostly based on a paper, "Atmospheric Carbon Dioxide," that was part of a volume prepared y the President's Science Advisory Committee (PSAC) in November 1965.

hat 20-page paper, written by Revelle, Keeling and three other top climate scientists, was submitted to the resident at a time when environmental concerns were just blossoming into a policy priority. It said that the ıtest science suggested the increase in CO2 "may be sufficient to produce measurable and perhaps marked hanges in climate." Citing a growing body of published research, it discussed the implications for melting olar ice and rising sea levels in the centuries to come.

hat SRI was inserting carbon dioxide into a report mainly about conventional pollutants like smog suggests ıdustry had to deal with this new aspect of pollution now that even the president was pointing it out.

At the point where these issues are matters of public debate, industry has to be looking at them," Muffett said.

ı the SRI report's section on CO2, Robinson and Robbins identified it as "the most commonly emitted air ollutant." Still, they noted that CO2 was so ubiquitous that regulators didn't even consider it to be pollution.

This is perhaps fortunate for our present mode of living, centered as it is around carbon combustion," they rote. "However, this seeming necessity, the CO2 emission, is the only air pollutant which has been proven to e of global importance to man's environment on the basis of a long period of scientific investigation."

he report also dealt with other uncertainties, such as a possible cooling effect caused by an increase in articulate matter. It noted that the long-term trend of particulate pollution could neutralize warming caused by :O2, but on balance said "the prospect for the future must be of serious concern."

Although there are other possible sources for the additional CO2 now being observed in the atmosphere, none eems to fit the presently observed situation as well as the fossil fuel emanation theory," the authors wrote.

he SRI paper explored in detail the possible rates of emission, how concentrations might increase and how ıuch temperatures might rise.

he finding—which matched Revelle's—that about half the CO2 emitted seemed to stay in the atmosphere was onfirmed later by more sophisticated research. It helped explain why emissions over decades of increased eliance on fossil fuels would lead to a doubling of atmospheric CO2 concentrations from pre-industrial times.

RI also said that unlike local pollutants such as smog, carbon dioxide would last a long time in the global tmosphere. "The natural scavenging processes for removing CO2 from the atmosphere are not sufficient to ıaintain a stable equilibrium in the atmosphere in the presence of this increase in emissions."

he paper said that better models were needed to estimate more accurately how the increased atmospheric CO2 ıight boost global temperatures. (The Revelle report had predicted in 1965 that better models might come long in just a few years.)

RI also repeated Revelle's assertions that if the earth's temperatures rose substantially, it could lead to ignificant risks for the planet.

It is clear that we are unsure as to what our long-lived pollutants are doing to our environment; however, there eems to be no doubt that the potential damage to our environment could be severe," SRI said.

The assessment's frank tone contrasted with the more measured rhetoric Robinson and industry representatives would use in later public reports.

In a paper presented at the World Petroleum Congress in Moscow in June 1971, Robinson wrote that increasing carbon dioxide levels might pose a serious problem. He also said estimating the impact rising CO2 could have on global temperatures would be difficult because of the complexity of atmospheric science.

The simple conclusion that an increase in absorbed radiation would provide a significantly warmer atmosphere and perhaps would melt the ice caps does not seem to be justified," Robinson wrote.

The National Petroleum Council, an advisory body including top officials of many oil companies, submitted a report to the government in 1972 entitled "Environmental Conservation." The NPC report cited the work of Robinson and Robbins but hewed to a more cautious line, quoting from a review of the emerging research written by the American Association for the Advancement of Sciences.

If at the end of this century, the average temperature has continued to rise and, in addition, measurement shows that the amount of atmospheric carbon dioxide has also increased, this will add validity to the idea that carbon dioxide is a determining factor in causing climate change," the NPC report said.

It continued to say that it would take until at least 2000 to decide whether global temperatures were rising significantly.

If indications at that time are that major changes are required," it said, "society can meet that requirement as it has met its challenges throughout history by developing alternative social or technological solutions."

But this seemed to evade what was becoming increasingly clear to atmospheric scientists: If the problem of global warming emerged as their calculations suggested, it meant shifting away from fossil fuels.

In one footnote, the petroleum council cited not only the work of Robinson, but also a paper by an official at the Federal Bureau of Land Management, Eugene K. Peterson, who had written a comprehensive overview of climate science and its ecological implications for the journal Environmental Science and Technology in 1969.

Peterson cited projections of increases in the atmospheric concentration of CO2, and early estimates of the resulting temperature rise. He also speculated on side effects such as acute water shortages, increased forest fires, and impacts on fisheries.

And he concluded that if current estimates proved to be correct, the time would eventually arrive —"if it has not already been reached"—that "additional CO2 input through the burning of fossil fuels should cease."

The increasing blanket of CO2 in the atmosphere, he warned, "could prove to have such an effect upon the environment that it will be a major limiting factor for several centuries upon both industrial development and world population."

It would be several more years before a National Academy of Sciences review panel chaired by Revelle would sound a similar warning in 1977—catching the attention of an Exxon employee, Henry Shaw, who helped lead the company's broad climate research in the decade that followed.

But the industry as a whole was already on notice.

'art II – In the 1940s and 1950s, the oil industry questioned research that pointed to fossil fuel emissions as the ıain ingredients of smog, a record that reads like an early draft of its later approach to climate change.

[Redacted]

Exhibit S46

From: Matt Pawa <mp@pawalaw.com>
Sent: Thursday, March 31, 2016 5:31 PM
To: Matt Pawa
Subject: FW: NY Times: West Antarctic Ice Sheet Could Begin Disintegration Within Decades, Inundating Coastal Cities

AG Folks - I have started an email list to pass along information that may be of interest to AGs on the issue of our time: climate change. I will use this list rather sparingly given that we all receive way too many emails. If you prefer not to receive these emails let me know and my office will remove you.

You may have seen this article in the NY Times today. http://www.nytimes.com/2016/03/31/science/global-warming-antarctica-ice-sheet-sea-level-rise.html?_r=0
Without exaggeration, it is the single most frightening thing I have read on climate change in the 20 years I have been studying and tracking the issue. In essence, new research shows there is a much more serious risk of the West Antarctic Ice Sheet beginning to disintegrate this century than scientists previously had thought. Sea levels could begin inundating coastal cities within decades as opposed to the centuries or millennia previously considered to be the applicable timeframe. I commend this article to you as essential reading.

Best regards,
Matt

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Exhibit S47

Confidential Review Draft – 20 March 2016

Potential State Causes of Action Against Major Carbon Producers:
Scientific, Legal and Historical Perspectives

25 April 2016
Harvard Law School, Cambridge MA

Co-organized by Harvard Law School and the Union of Concerned Scientists

Meeting Objectives:

- Create a 'safe space' for a frank exchange of approaches, ideas, strategies, and questions pertaining to potential state causes of action against major carbon producers and the cultural context in which such cases might be brought.
- Share legal and scientific information having an important bearing on potential investigations and lawsuits.
- Surface and consider key concerns, obstacles, or information gaps that may need to be addressed for investigations and lawsuits to proceed.
- Establish trusted and productive networks to support ongoing development of these ideas.

Meeting Agenda:

12-12:30: meet, mingle, lunch

12:30-1:00: Welcome and introductions (moderator: Goho)
- Professor Richard Lazarus, Harvard Law School
- Ken Kimmell, President, Union of Concerned Scientists

1:00-2:00 Introductory/overview panel (moderator: Frumhoff)
- The question of climate responsibility Naomi Oreskes, Harvard
- Lessons from tobacco litigation: Sharon Eubanks, Bordas & Bordas
- The case for state-based investigations and litigation: tbd
- Key legal issues: Shaun Goho, Harvard Law School

Open Discussion (15 min)

2:00-3:00 Attributing Impacts to Climate Change and Carbon Producers

- Extreme weather and climate change: Phil Mote, Oregon State
- Sea level rise and coastal flooding: Ben Strauss, Climate Central
- Tracing impacts to carbon producers Peter Frumhoff, UCS
- Climate harms from a legal perspective Carroll Muffett, CIEL

Open Discussion (20 min)

3:00-3:20 Break

3:20-4:20 State Causes of Action

- Public nuisance claims: Harvard, tbd.
- Consumer protection claims: UCLA
- Key obstacles & opportunities to address them Ken Kimmell, UCS

Panel Discussion (30 min) (additional participants tbd)

4:20–5:15 Open Discussion (include messaging/communication/public dimension; process for ongoing expert input and dialogue;)

5:15: Wrap up and next steps

5:30: Adjourn

Continued information dialogue over dinner in Harvard Square, location tbd

Exhibit S48

Union of Concerned Scientists
Science for a healthy planet and safer world

[BLOG] UNION OF CONCERNED SCIENTISTS

Scientists, Legal Scholars Brief State Prosecutors on Fossil Fuel Companies' Climate Accountability

PETER FRUMHOFF, DIRECTOR OF SCIENCE & POLICY | MAY 11, 2016, 10:09 AM EST

SHARE

Efforts to hold fossil fuel companies accountable for their contributions to climate change have gained both momentum and traction as attorneys general in Massachusetts and the US Virgin Islands recently joined their counterparts in New York and California in investigating whether ExxonMobil violated state laws by denying or distorting the climate risks of their products to investors and the public.

At the Union of Concerned Scientists, my colleagues and I are committed to ensuring that such investigations are grounded in the best available science and scholarship.

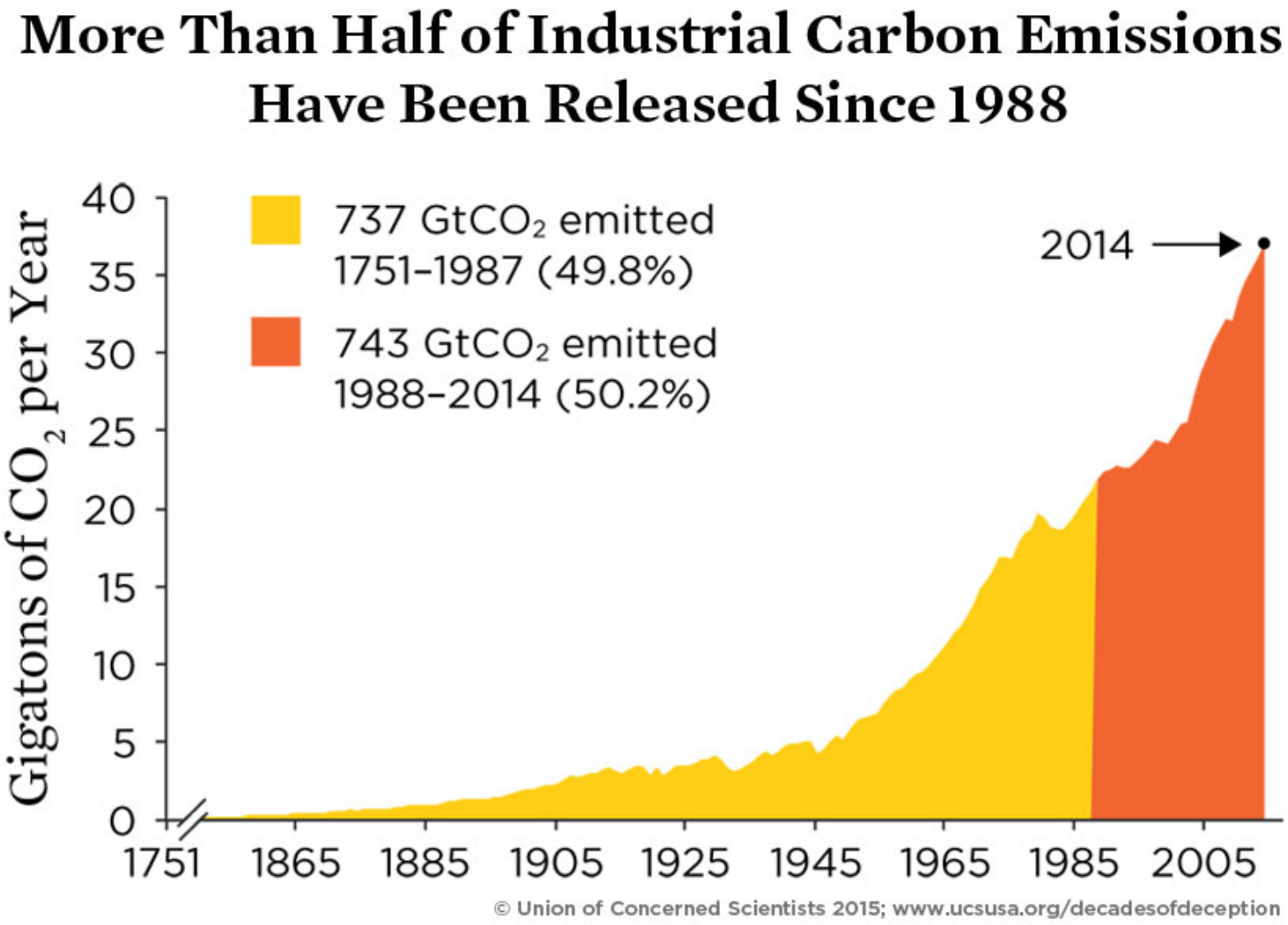
Back in 2007, we published a report called *Smoke, Mirrors and Hot Air: How*

ExxonMobil Uses Big Tobacco's Tactics to Manufacture Uncertainty on Climate Science, which documented that the company had spent nearly $16 million to sow doubt about the climate risks of their products.

In 2012, we partnered with the Climate Accountability Institute (CAI) to hold a workshop in La Jolla, California that brought together a cross-disciplinary group of nearly two dozen leading scholars and practitioners to explore how lessons from tobacco control might inform public and policy maker understanding of fossil fuel company responsibilities for climate change.

In 2015, CAI's Richard Heede, Harvard University historian of science Naomi Oreskes, and I argued in a 2015 Climatic Change paper that leading fossil fuel companies have significant responsibilities for climate change, both because of their large contribution to the problem and because, knowing the serious risks of their products, they engaged in a campaign of climate disinformation to avoid policies and investments that might have stabilized or reduced emissions.

Led by Kathy Mulvey and Seth Shulman, UCS published our 2015 Deception Dossiers report, detailing the decades of climate disinformation promulgated by leading fossil fuel companies, trade associations, and industry-funded lobbying groups such as the American Legislative Exchange Council (ALEC).



More than half of all industrial carbon emissions have been released since 1988–since fossil fuel companies knew of the climate risks of their products. Adapted from Frumhoff et al 2015

We are speaking out on the evidence and argument for fossil industry climate accountability in public forums across the US. And we are briefing a wide range of policymakers—from members of the California State Senate considering climate accountability legislation (the Climate Science Truth and Accountability Act, SB1161) to members of the Philippines Commission on Human Rights investigating whether the largest investor-owned fossil fuel companies have violated the human rights of Philippine citizens affected by worsening extreme weather.

In late March, I was invited to brief several US state attorneys general and their staff on my research at a climate meeting of state attorneys general hosted by New York attorney general Eric Schneiderman.

More recently, UCS President Ken Kimmell and I participated in an April 25 workshop on "Potential State Causes of Action Against Major Carbon Producers: Scientific, Legal and Historical Perspectives" which UCS co-convened with Shaun Goho and colleagues at Harvard Law School's Emmett Environmental Law and Policy Clinic.

Held at the law school, the meeting provided senior staff from state attorneys general offices in nearly a dozen states with an opportunity to hear from leading climate scientists, legal scholars, historians, and other experts on topics including climate attribution research, lessons from tobacco litigation, and the potential role of state consumer protection laws.

We were joined by a superb set of panelists, including Naomi Oreskes; attorney Sharon Eubanks (Bordas and Bordas, PLLC), who served as lead counsel for the US Department of Justice in federal tobacco litigation; climate scientist Phil Mote (Oregon State University), coauthor of the recent National Academy of Sciences report on climate attribution of extreme weather events; Carroll Muffett, President and CEO of the Center for International Environmental Law; and Cara Horowitz, co-director of the Emmett Center on Climate Change and the Environment at UCLA Law School. I spoke on current climate science and attribution research; Shaun Goho and Harvard Law students presented synopses of their legal research.

Harvard Law School routinely hosts meetings that provide policy makers with opportunities to confer with scholars and practitioners. State attorneys general and their staff routinely confer privately with experts in the course of their deliberations on matters before them.

This is as it should be. I look forward to further opportunities to brief policymakers about climate science and the climate accountability of major fossil fuel companies and, in so doing, support timely, valuable initiatives to uphold the law and accelerate our essential transition to a clean, vibrant, low-carbon energy economy.

Posted in: Global Warming Tags: climate accountability, fossil fuel companies, The Exxon Climate Scandal

Support from UCS members make work like this possible. Will you join us? Help UCS advance independent science for a healthy environment and a safer world.

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PETER FRUMHOFF is a global change ecologist and serves as director of science and policy for UCS.

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[TOPICS]

Biofuel
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Food and Agriculture
Global Warming
Nuclear Power
Nuclear Weapons
Science and Democracy

Exhibit S49

From: Shaun Goho <sgoho@law.harvard.edu>
Sent: Thursday, April 07, 2016 9:05 AM
To: Kline, Scot
Subject: RE: Voice message

No AGs, just staff.

From: Kline, Scot [mailto:scot.kline@vermont.gov]
Sent: Thursday, April 07, 2016 8:35 AM
To: Shaun Goho
Subject: RE: Voice message

Thanks, Shaun. Any AG's attending? Or will it be staff?

From: Shaun Goho [mailto:sgoho@law.harvard.edu]
Sent: Wednesday, April 06, 2016 1:21 PM
To: Kline, Scot <scot.kline@vermont.gov>
Subject: RE: Voice message

Scot:

Here is a draft agenda for the conference. We are still finalizing the list of attendees, but we know that there will be people from at least the following states: California, Connecticut, Illinois, Maryland, Massachusetts, and New York.

Please let me know if you have any other questions.

Shaun

Shaun A. Goho
Senior Clinical Instructor and Staff Attorney
Harvard Law School | Emmett Environmental Law & Policy Clinic
6 Everett St., Suite 4119, Cambridge, MA 02138
(t) 617.496.5692 (f) 617.384.7633 (e) sgoho@law.harvard.edu

From: Kline, Scot [mailto:scot.kline@vermont.gov]
Sent: Tuesday, April 05, 2016 10:29 AM
To: Shaun Goho
Subject: Voice message

Shaun:

I received your voice message about the conference later this month on climate change. Peter Frumhoff also mentioned it last week. I have been traveling lately. Can you send me the materials on the conference? It also would be helpful to know the list of attendees, including any states.

SK 93

Thanks.

Scot Kline
(802) 828-0033

Exhibit S50

SUPREME COURT OF THE STATE OF NEW YORK

COUNTY OF NEW YORK: TRIAL TERM PART 61

- X

In the Matter of the Application of the
PEOPLE OF THE STATE OF NEW YORK
by ERIC T. SCHNEIDERMAN,
Attorney General of the State of New York,

Petitioner,

For an order pursuant to CPLR Section 2308(b)
to compel compliance with a subpoena issued
by the Attorney General

- against -

PRICEWATERHOUSECOOPERS LLP and
EXXON MOBIL CORPORATION,

Respondents .

- X

Index No. 451962/2014

June 16, 2017
60 Centre Street
New York, New York 10007

B E F O R E: THE HONORABLE BARRY R. OSTRAGER, Justice.

A P P E A R A N C E S:

STATE OF NEW YORK OFFICE OF THE
ATTORNEY GENERAL ERIC T. SCHNEIDERMAN
120 Broadway
New York, New York 10271-0332
BY: JOHN OLESKE, ESQ.
MANISHA M. SHETH, ESQ.
MANDY DeROCHE, ESQ.

(Continued on next page for certification.)

Proceedings

A P P E A R A N C E S (Continuing):

PAUL, WEISS, RIFKIND, WHARTON & GARRISON LLP
Attorneys at Law
1285 Avenue of the Americas
New York, New York 10019-6064
BY: THEODORE V. WELLS, JR., ESQ.
DANIEL J. TOAL, ESQ.
JUSTIN ANDERSON, ESQ.

Terry-Ann Volberg, CSR, CRR
Official Court Reporter.

Proceedings

THE COURT: Normally ExxonMobil is outnumbered in the courtroom, but not today.

I have orders to show cause which contain ExxonMobil's motion to quash, and for a protective order, and the Attorney General's motion to compel.

As has been the case with respect to all of our many prior proceedings, I have read all of the papers, and I have some historical experience with respect to these kinds of issues and disputes. So what I would like to do is take as the point of departure the orders that were issued in connection with the March 22nd transcript which I've reviewed in anticipation of this morning's proceedings, and passing the issue of what depositions and what interrogatories the Attorney General may seek, I want to start today's discussion about documents because it was my understanding that everybody agreed that after 16 months of document production, and after complete agreement on search terms and custodians and additional search terms and additional custodians, that there would be a certification within ten days after March 31st that ExxonMobil had fully complied with its obligations to produce documents, and that the Attorney General would have the opportunity to depose affiants who would attest to ExxonMobil's compliance with the

court orders of March 22nd, and with the agreements that were reached at the March 22nd hearing.

Now if the affidavits were insufficient or the depositions of the affiants were not satisfactory and additional deponents are required with respect to compliance with the orders issued on March 22nd and the agreements reached on March 22nd, that seems like a reasonable thing for the Attorney General to seek and request although I understand ExxonMobil has a different view. With respect to interrogatories, it seems to me that the Attorney General is entitled to ask non-burdensome, non-overbroad, non-abusive interrogatories.

Let's start with the issue of the Attorney General's request for additional documents and correspondence, the motion to quash that request.

So who wants to go first?

MR. WELLS: I will go first.

THE COURT: Mr. Wells has grabbed the floor.

MR. WELLS: Your Honor, I asked your staff if next time I can bring a computer and use a PowerPoint instead of these somewhat archaic boards.

THE COURT: We love the old-fashioned paper presentations.

MR. WELLS: For much of my life and yours

this is how we used to do it, so I am comfortable doing it this way.

My first line is consistent with the comments by your Honor because I think we need to start with what happened on March 22nd.

I note, and we go back --

MR. OLESKE: We can't see.

THE COURT: The attorney cannot see your charts.

MR. WELLS: I can hand a copy of the slides to your Honor.

THE COURT: I am happy to take it.

(Handing.)

MR. WELLS: We will mark that as Exxon Exhibit Number One.

(Exxon Exhibit Number 1 marked in evidence.)

MR. WELLS: On November 21, 2016, the New York AG stated, "The production of documents from a company like Exxon has to have an end date. We have to have some expectation of the finality." Then on March 22nd the New York AG stated, "No one wants more than the Attorney General to complete the process of obtaining these documents and moving on to the next stage of the investigation."

We understood the next stage of the investigation would be where they would begin taking substantive depositions of the witnesses who they had identified based on the production of almost three million pages of documents. We have no objection to them going to that next stage and taking those depositions. I want to be clear.

Now what happened after that -- also, what happened that day, again consistent with your Honor's comments, I stood up and I said, here's what I understand I am supposed to do. I am supposed to give certain documents to them by the 31st. I am supposed to get a certification by April the 10th.

We moved heaven and earth to finish the document production. We got them the certification on time as required, and they were even permitted, as indicated by the court, to depose my partner, Michele Hirshman, with respect to certification, but the whole purpose of the certification was that it was to certify that the process was over. Again, we did that.

I even talked about, I said, I will do that with this final certification which usually comes at the end of process. You tried to ask me to get it by March 31, you gave me ten extra days, but everyone was on the same page. We knew what we were talking about,

we would end the document production and move to depositions.

Now what happened thereafter is that on May 8th we were served with a new subpoena requesting depositions and requesting documents. Now the depositions they requested, which we have no objection to involve depositions, that would be part of the next stage, the substantive witnesses. These witnesses are very important because they asked for five substantive witnesses. One we don't control, we can deal with that later, but the other four people who we agreed to immediately were Bill Colton, vice president of Corporate Strategic Planning. His deposition is scheduled for June 27. That's the date they asked for. We didn't negotiate with them about extending it. They asked for June 27. We said that he is happy to testify, we will produce him, and we plan to produce him on June 27. They asked for Robert Bailes, he is scheduled for July 19, Pete Trelenberg, he is scheduled for July 25, and Guy Powell, he is scheduled for July 28.

What is important about these four people is that all of them are involved in identifying what the proxy costs are, and how it's developed, and also how -- what GHG costs are, and how they are developed.

They are two very different concepts, but in their papers what they talk about is, they seem to say there's a difference between proxy costs and GHG costs, and they suggest someone -- we have two sets of books. The fact of the matter is, proxy cost is a different concept than GHG cost, and they are used for different purposes.

The important thing is that Mr. Colton is the author of the Energy Outlook, and he is also the head of corporate planning which deals with the budgeting part, and they asked for him first, and we told them that's the right person to talk to because he can explain all of the role of the proxy cost to you, he can explain how those costs are used with respect to budgeting, he can explain GHG, how all of this is done. They just waited to take the deposition of Mr. Colton because he really is the boss, so to speak, he is the author of the Energy Outlook, and because he heads the budgeting process on the corporate planning side, he brings the two things together.

So they waited to take this deposition. They wanted to see if it would be necessary. They asked for all these documents. It would be unnecessary to file these outrageous allegations about sham accounting, and double books, and two numbers. It was just wrong, what

they did.

I want to be clear: All of these people are scheduled to be deposed, and we didn't fight them. We said, happy to bring them in, and this is the first date they asked for, and he will be produced.

Now turning to what else they did do on the 8th, they served a subpoena which we contend is contrary to the agreements reached on March 22nd, is unnecessary, is overly burdensome, which is grounded in some notion of sham transactions that if they bothered to take the deps first, we wouldn't have to be here and spend all of this time on all of these papers. What they did, they asked for the deps which we agreed to, but yet they asked for us to put together 12 years of analysis involving every business decision in terms of oil and gas exploration that Exxon has made over 12 years. This is not pushing some button. There is no pushing a button. This would take a year, two years to do. It would take a long time. Nobody really knows. Nobody has ever engaged in that type of exercise.

THE COURT: Subject to what the Attorney General is going to say, that seems unreasonable on its face.

Now let me be clear: The four people who are being deposed, those were custodians from whom

documents were previously requested?

MR. WELLS: Yes, that's how they know their names, and they identified -- they have had hundreds of pages of documents on proxy costs and the Outlook, and based on their review of the documents they knew exactly who they asked for.

They set up Mr. Colton first. We agreed, he is the boss. He is the one that can tell you everything. He is the author of the Energy Outlook. He is --

THE COURT: Look, subject to what the Attorney General says, it seems to me that these deponents were previously identified as custodians, and you produced all the documents in their files that were called for by the search terms that were expanded at prior, at a prior hearing that we had, and that there shouldn't be any more documents produced because over 16 months the Attorney General has made multiple motions to compel, revised the number of custodians, revised the search terms, and they are going to get a lot more information from the depositions than they are going to get from these documents.

MR. WELLS: Yes, it's not like they would even have these documents by June 27 because this would take an enormous amount of manpower to even produce.

It's not like we are taking a dep June 27, and we need this particular piece of paper next week. There is a complete disconnect, in fact.

THE COURT: Let me ask you this, Mr. Wells, because I know that you have a dozen more boards.

MR. WELLS: I wish it was only a dozen.

THE COURT: At the rate we are going, we will be here until 4:00 o'clock.

You would agree that the Attorney General can supplement its document requests with tailored interrogatories requesting responses to certain questions that arise from the content of the documents that you already produced?

MR. WELLS: I agree that they have the statutory power to pose interrogatories that are reasonable. I would argue if they are taking the deps of 14 people, that they will take the deps first before people start running around engaging in interrogatories, but the concept, I agree, that they have the statutory power to request an interrogatory. I agree that they have that power. Whether they -- whether it makes any sense given that they are producing witnesses is something, I guess, you have to see is it a targeted interrogatory or not. You would have to look at the interrogatory. But do they have

the power? I agree they have the power.

THE COURT: Okay, because I believe they have the power to propound interrogatories as long as the interrogatories are not excessively burdensome, unreasonable and abusive.

I'm sorry. I interrupted you.

MR. WELLS: I thought you were going to interrupt me in the way you wanted us to short circuit --

THE COURT: I am comfortable that you should be producing witnesses, responding to interrogatories, and not producing any more documents subject to what the AG says.

MR. WELLS: May I have one second, your Honor?

THE COURT: Yes.

(Discussion off the record.)

(The discussion off the record concluded and the following occurred in open court:)

MR. WELLS: I am going to try and cut some of this short.

What I want to do for the court's edification is state for the record that there's a difference between what we call proxy costs and GHG costs,

greenhouse gas costs.

THE COURT: I get it. I get it that if you know exactly how much it costs to take oil out of the ground in Alberta, you don't need to have a proxy cost.

MR. WELLS: That's what I want to clarify. We actually used both. There are two different concepts.

When the Energy Outlook talks about proxy costs, that is the cost of proxy that ExxonMobil uses for purposes of developing what it thinks the demand will be for energy, oil and gas over the years.

THE COURT: Understood, but you start with how much it costs to get it out of the ground, and then you figure out how much you can sell it for.

MR. WELLS: Yes. We actually start with what we think the demand will be before we get to cost. We do both, whether it's a chicken or an egg, but the proxy cost refers to the development of the demand curve.

When you take into consideration a proxy cost, what you are saying is that the actions of governments in the future may be such as to suppress the demand for oil and gas, move people to use other types of energy sources, and that's going to suppress the demand, and that affects our supply and demand

which ultimately affects the price.

THE COURT: I understand. We said the same thing differently.

MR. WELLS: The GHG, those are specific costs for specific projects, and they both come together, but the proxy costs are really baked in to our demand forecast. This is a document that we produced to the New York AG, and what this document in front of it is a GHG Stabilization Challenge and Carbon Asset. This shows that the Energy Outlook takes all sorts of things into consideration: macroeconomics, technology, climate policy, all to ultimately produce, again, a price curve, what's going to be the demand. Then we figure out what the prices are. So the Energy Outlook is one of the most important documents at Exxon, and it's used to analyze every project because that's where we end up getting our prices.

Now I want to show one document that they refer to in their brief, they did not supply it to the court or us, but it's a document from PricewaterhouseCoopers. It's a critical document, four pages. I won't go through all of it, but what this document shows is ExxonMobil having discussions with its accountants about both proxy costs and GHG costs, and how it goes about doing what it does in terms of

taking into consideration climate change issues.

All of this was discussed with our accountants, they know all of this, and how, with knowledge of this document, they can file papers where they wrongly state that we were involved in some kind of sham transaction or had two sets of books, it's just wrong what they did.

I would like to hand the court a copy. I will make this Exxon Exhibit 2.

(Exxon Exhibit Number 2 marked in evidence.)

MR. WELLS: Your Honor, do you have the document?

THE COURT: I do.

I am having a hard time understanding what the dispute is here.

MR. WELLS: They filed -- they filed a brief --

THE COURT: They filed a brief. They said you did terrible things. You're unhappy that they filed the brief that said you did terrible things. You did what you did. The documents that you produce say what they say. The witnesses that you are going to produce are going to testify to what they are going to testify to. The interrogatories that you are going to

answer are going to be admissible against you in any trial proceeding.

I'm having a hard time understanding how it is that the New York AG after receiving all of these millions of documents and deposing all of the witnesses that they have scheduled and are going to schedule in the future are going to be unable to satisfy themselves as to what the true state of facts is here.

MR. WELLS: Well, your Honor, we believe based on documents we have given them, and, for example, this document (indicating), that they should know that the true state of facts is that ExxonMobil has not done anything wrong.

THE COURT: Okay. They have one interpretation of the documents that you've produced. You have a different interpretation of the documents that you've produced. The two briefs that have been submitted here can't be reconciled, and I can't decide who's right and who's wrong on the papers. I suppose I could conduct a trial and hear the witnesses that the AG is going to depose, and review the documents in the context of the testimony and form some very accurate conclusions about whose version of the facts is correct, but we are not here for that. We are here to decide whether or not you have to produce any more

documents, whether or not you have to produce any more witnesses, and whether or not you have to answer any interrogatories, right?

MR. WELLS: That is correct, your Honor.

MR. OLESKE: I think I can help with these points specifically, if I may. I mean, I think I can cut to exactly --

THE COURT: I don't want to interrupt Mr. Wells, but if he does not object --

MR. OLESKE: I mean --

MR. WELLS: I do not object.

THE COURT: He dose not object.

MR. OLESKE: Thank you, your Honor.

I mean, I am prepared to speak to everything Mr. Wells raised, and, obviously, based on what the court said, the Attorney General has its work cut out to make sure it's clear to the court the stakes here, and what's at issue specifically in terms of the document requests that the court has focused on.

But just to come from where the court was just speaking, this is not a merits dispute. The posture we are in on subpoena compliance in a law enforcement investigation does not allow for the weighing of merits disputes.

THE COURT: I complete and totally agree.

Proceedings

MR. OLESKE: And so based on the papers and the record that we have here, the Attorney General has the right to proceed with this investigation. I think your Honor has already pointed to the right to take interrogatories, the right to take witnesses. The key stumbling block it seems for the court is whether or not the Attorney General has the right to get these additional documents to support its investigation, and it appears that there is kind of a dangerous possibility of Exxon managing, through what we view as a contemptible history of compliance, of establishing some new now non-existent legal standard that if a company produces X million documents over X period of time, that's it, you are done.

Going to your Honor's initial point about the last time we were here for compliance and your Honor ordered what your Honor ordered with respect to compliance on the original subpoena, to your Honor's implicit question of time, we are deeply unsatisfied with the information that we got out of Exxon's compliance witness both in the affidavit and in the testimony. There's years worth of destroyed documents that the company still has not accounted for, and that's the four records witness subpoenas that we have issued that Exxon's also contesting and doesn't want to

submit to, to find out where these destroyed documents are and how that happened.

Putting that aside for a moment, it's really not about whether or not Exxon finished its compliance under the first subpoena, which we don't think they did. We have issues there. The real issue is based on what we have learned in fits and starts as Exxon has at every move grudgingly given us information over this extended period of time, lost and destroyed documents along the way, had to redo everything at the end, at the end of that we have. As your Honor suggested in our prior appearances, we focused our investigation on the specific allegations that the evidence Exxon has produced in that first round evidences, are contradictory to Exxon's representations.

I am not getting into everything that Mr. Wells said about what Exxon has disclosed which is unfortunately false. Exxon's disclosure is there was a product that was one price. It was used for both purposes. It's in the record. I will not argue it, but that's the merits question that we won't get to.

The question is, the Attorney General has formulated requests for documents based on the gaps, the missing information, what should be there that we are not getting even though we are using these search

terms, GHG and proxy costs, but all of this stuff that now for the first time in an attorney affirmation Exxon is explaining to us, because in an attorney's brief Exxon is explaining to us about the facts of how they do this. We don't have these documents. The search terms should have caught them, but we don't have these documents.

Exxon has continued to make these same representations after November of 2015 when we issued the subpoena. In fact, their CEO chairman made the most unqualified statements about this process at the annual shareholders meeting in 2016.

Our subpoena's instructions called for Exxon to produce documents up to the date of the production. They didn't finish their management documents until two or three months ago because they did it wrong the first time, they had to redo it, but they refused. They refused to ongoing -- supplement their production by giving us the documents from 2016. They refused to do that even though they are obviously relevant.

We asked for documents relating to Exxon's impairment and write-down of assets because we learned in the course of the investigation, your Honor instructed us to go to Exxon's accounts first to prosecute our subpoena there, get the documents from

them, before asking, this was in an appearance last year, before asking Exxon in a subsequent subpoena for a broad range of counter-documents.

We listened to the court. We went through PricewaterhouseCoopers' documents. We learned that Exxon, contrary to its representations to the public, never applied the proxy costs when it came to this apparent analysis. We learned it through the PricewaterhouseCoopers documents, but we still don't have Exxon documents.

THE COURT: Look, you told me, Mr. Oleske, that we are not arguing merits here. We are just arguing compliance with discovery.

MR. OLESKE: Your Honor, it's not discovery, it's our investigative subpoenas, and our new investigative subpoenas are focused and have a factual connection, direct factual connection to the factual basis that we have established as the basis for our investigation, and so legally there is no basis to restrict the Attorney General from obtaining additional documents simply because the target argues that they complied in full with a first subpoena. Even if it's millions of pages, even if it takes a long time, the cases we cite in our brief are directly on point about companies exactly like Exxon that say the reason why we

need all of these documents, the reason why we need to look over Exxon's business it because it has a big complex business, and it chose to make the representations that it applies this process all across its business, across its many units for all of its decisions.

So there is no legal basis. It's just a question of whether or not Exxon can talk its way out of it by saying we produced X million documents so far, you should have gotten these documents in what you were looking for so far, but we haven't.

We have not seen -- this is the other thing -- Exxon -- Mr. Wells says they can't push a button to respond to this. In addition to the other ways in which Exxon's new assertions and attorney argument violate, contradict its representations to the public, Exxon has represented to the public that it has a comprehensive, uniform, rigorous system for keeping track of all of this, and now we are hearing Exxon cry that it cannot report to a government investigation, let alone for its own business purposes for shareholders, this very information that Exxon claims in its disclosure should be at its fingerprints about a process that it's applying all over the company in order to satisfy investors concerns about a specific

risk.

So the problem that we have is that we have demonstrated the factual basis. Exxon said X, they did Y, and in response they have come up with Z, attorney admissions of what they did and attorney rewritings of their disclosures. That's not a basis to resist the investigation. It's specifically on the document requests.

We have shown in our papers, I can walk through each one, how these are focused on obtaining additional information that is necessary to follow up on the first feed. That's within our office's power, and the scope or the duration of the prior production does not legally have an effect on that. As to our request for information --

THE COURT: I'm trying to make this simple.

When you were here on March 27 Mr. Toal stood up, and Mr. Toal said properly, it's our obligation as attorneys for ExxonMobil to make a continuing production of documents that come to our attention that are responsive to the requests that have been made that weren't produced, however it is that they come to learn about things. It's a big company, and they have certified that they've complied with the production of all responsive documents from all of the custodians

that you have asked them to produce documents from, using all of the search terms that you've agreed.

You are going to depose multiple witnesses, you are going to propound interrogatories, and it seems to me that during the course of the depositions that you are going to conduct including additional depositions to verify compliance, because I think you've made a showing that their two affiants who they have produced did not satisfy you that they have fully complied with what they undertook to do. So I'm not precluding you from taking further depositions with respect to their compliance.

So I am not precluding you from propounding reasonable interrogatories, I am not precluding you from taking depositions, and I am not precluding you from coming back here and explaining based on what the additional depositions about process by which documents were produced including why documents disappeared, and based on what the witnesses testified to in their depositions as fact witnesses, and what the interrogatories you propound reveal that you need more documents.

What I am saying is that when you have engaged in a 16 month process of requesting and receiving documents from Exxon's auditors, agreeing

with Exxon on custodians whose files you want searched, agreeing with Exxon on what the search terms are that are going to be used to produce documents from the custodians, you can't start round two of producing documents all over again.

MR. OLESKE: Your Honor, a couple of things. I need to discuss each of the items, your Honor. Okay.

We have been in this process for 16 months. Exxon has produced literally three million pages of documents. That process took that long, and we still are without the documents we need because of Exxon's choices. They created this system of dribbling out documents, fighting us at every turn.

We didn't choose the custodians. It's Exxon's job to know where the documents, the relevant documents are, who works with the right information. Based on what we have just heard this last week now there is a whole suite of relevant facts that Mr. Wells is averring to for the first time on Exxon's behalf ever. We have not seen any documents referring to what Mr. Wells has talked about.

But putting aside the compliance with the original subpoena and those issues that do need to be resolved, that is not what we are here about. The Attorney General does have the authority even if --

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THE COURT: I understand you have the authority to ask for additional documents. I get that. I get that.

MR. OLESKE: I will get to why --

THE COURT: You have the authority. You have to make a showing that by taking depositions, and propounding interrogatories, and taking testimony from the people who supervised the production of documents, that they have misled you, and have, you know, failed to be forthcoming.

MR. OLESKE: No, your Honor, I hear that this is the critical issue for your Honor.

There are two issues: There's a legal issue and a practical issues. The legal issue is, no, that is actually not the standard. We are not required to show, to sustain document requests that we are not going to get the information we need through alternative investigative techniques that we are also empowered to use.

On a practical level in this case, your Honor --

THE COURT: You have not shown me that you have not gotten the documents that you claim you need.

MR. OLESKE: We explained that in our papers --

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THE COURT: I read your papers. I read their papers.

MR. OLESKE: The simplest example of all of these, your Honor, is that we have Exxon in our subpoena making one, two, three, four, five, six, seven, eight, eight different public representations in a different language, in different places, and different formats to investors and the public about how they have done this. The witnesses that we are talking -- by the way, they have changed that over the last year.

THE COURT: That's your case on the merits.

MR. OLESKE: My point is, yes, that's what we are investigating. That's what we have a --

THE COURT: Excuse me. Can I ask you a question?

MR. OLESKE: Yes, your Honor. I'm sorry.

THE COURT: Were the words "proxy cost" not one of the search terms that was used in connection with the production of all of these documents?

MR. OLESKE: That proves two things, your Honor, two things. Yes, it and GHG both were search terms. First of all, they refused to search the last year and a half worth of documents for those terms. Second, yes, and it shows us why we need these

interrogatories and these document requests before we decide who else we need to depose, take testimony.

The reason why we need these documents now is because, yes, we did have GHG, and we did have proxy costs as search terms, and somehow the documents that show Exxon applying this in its rigorous way and in this new alternate world that Mr. Wells has described that's never been disclosed before, they have not produced those documents.

So the answer to that is either the documents don't exist, and we will find out when they respond we don't have these documents, or Exxon was responsible for interviewing and finding the right custodians which we know from the outcome of our testimony they did not do properly. They should know where the custodians are who have the documents that substantiate any of what Mr. Wells has said. We don't have that information.

So the point is, them arguing that they complied with the first subpoena, that they executed the search terms, that this is what we have got, that, as a matter of law, cannot preclude our office from following up with additional, more specific, more targeted requests for documents, and it is, in fact, inefficient, it interferes with our ability to progress our investigation, to wait to depose witnesses only to

ask them so what documents are there, and then asking let's just get the documents --

THE COURT: Can I just ask you a question?

Why didn't you ask Exxon 16 months ago or 12 months ago, please, identify individuals at ExxonMobil who have information or knowledge about the application of an implementation and disclosure of proxy costs and greenhouse gas costs?

MR. OLESKE: We did, your Honor. We asked them for that from the very beginning.

THE COURT: Did they respond to that?

MR. OLESKE: They identified some custodians although outside counsel had no part in identifying the outside custodians. ExxonMobil's legal department by itself unsupervised identified the custodians.

THE COURT: I am not precluding you from asking that question right now.

MR. OLESKE: The point is --

THE COURT: And then if it turns out there are people who should have been previously identified and haven't been identified, then they will have to produce the documents that those people have.

MR. OLESKE: I guess the point is, your Honor, that we think it's a waste of your time, the court's time, our time, Exxon's time, for us to be

trying to relitigate the custodian's or search terms under the first subpoena. We have issued these new subpoenas, we have narrowed requests for documents and for information to make sure that we are not wasting everybody's time.

THE COURT: I think you are wasting my time because Mr. Toal said he was going to produce any documents that come into his possession that are responsive to your first subpoena and that would include 2016 and 2017.

MR. OLESKE: They refused, your Honor.

THE COURT: Well, then I am ordering them to produce those documents.

MR. OLESKE: But the other documents we are asking for, your Honor --

THE COURT: So those documents will be produced because those are documents that they had a continuing obligation to produce.

MR. OLESKE: We agree. Your Honor, when we tried to meet and confer over this we pointed that out to them. They refused to meet and confer about any of these requests.

THE COURT: We have solved your problem with respect to those custodians. They are going to honor the undertaking they made in open court on March 22nd.

MR. OLESKE: I appreciate that. We solved that for one problem, for one of our document requests, document question number two. We appreciate, yes, they had that obligation all along and refused it. That's why we issued this targeted subpoena for that.

THE COURT: They also have an obligation to produce documents that are generally responsive to the issues that you've framed in your search terms that they are aware of.

MR. OLESKE: Right. That's why we thought had they had an obligation to produce this without a second subpoena, your Honor.

THE COURT: That's what they are going to do. That's what they are going to do.

MR. OLESKE: The additional --

THE COURT: You don't need to propound any additional document requests because they know what their obligations are and they are going to comply with their obligations.

MR. OLESKE: The other document requests are not encompassed by their failure to produce on the first subpoena. They are independently, factually-based document requests for new documents. They need to figure out, just like they always had an obligation, the people who have these responsive

documents for these new requests for subject matters that have grown out of our investigation for which we have demonstrated a factual basis and a connection between that factual basis and these new requests. For example --

THE COURT: Let me ask Mr. Wells two questions.

Mr. Wells, you agree that Exxon has an obligation to produce documents that come to Exxon's attention that are responsive to the original subpoena that was issued, correct?

MR. WELLS: If --

THE COURT: A continuing obligation?

MR. WELLS: I don't think we have -- it's just a definitional issue. I don't think after we have gone out and searched the files, talked to custodians, and produced the documents that every day of the week until this investigation is over --

THE COURT: Not every day of the week, but if a whole year goes by from the time that the original document request was propounded, and the files get filled up with a year's worth of stuff, I am not suggesting you have to mark to market every document that comes, that's generated on a daily or weekly basis, but when a whole year goes by, and there's a

plethora of documents that respond to an outstanding subpoena, you have an obligation to produce those documents.

MR. WELLS: If that's the issue, implicit in what you are saying is if this investigation goes say another three years, G-d forbid, that either every six months or every year we have got to spend it will be millions of dollars to go back and search 142 custodian files on an annual basis. I don't think that's how most subpoenas work. That's not how it's usually done.

We have produced up to the date. Now if I come across something, okay, I don't think I have to produce it, but whether it's civil litigation or an investigatory litigation, I don't think we have, in a big production like this, have to go back and redo it at a cost of millions of dollars every six months. I don't think that's --

THE COURT: What we are trying to accomplish today with no cooperation from either party is to move the investigation from the document phase, into the deposition phase, into the subsequent phase whether that's a trial, whether that's a consensual resolution, whether that's an injunction hearing. We are trying to get beyond, you know, being stuck in a time warp where you come back to court 17 times arguing about

documents.

I suggested 15 times that you meet and confer, and come to some reasonable resolutions, and at least six or seven times we have gotten these competing motions to compel or motions to quash.

MR. WELLS: In terms of cooperation, what we all agreed to, I thought on March 22, is that we would move to the next stage. When they asked to depose the key people with respect to proxy costs, they asked for June 27, I said he will be there. When they asked for the other dates, he will be there. We didn't move to quash the deposition subpoenas, because that's where everybody agreed where we were going.

So in terms of cooperation, they asked for these four people, and we gave them.

THE COURT: I don't think it's a huge concession on the part of ExxonMobil to produce four people who the Attorney General has requested to give deposition testimony after 16 months of document production.

Let me interrupt these proceedings. Everybody stay right where you are. I have one other matter that I need to deal with.

(A recess was taken.)

(After the recess the following

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occurred:)

THE COURT: Mr. Wells, I think you had the floor.

MR. WELLS: Thank you, your Honor.

I will try to be brief.

With respect to the issue of updating the document production aspect, what I want the court to consider is the fact that to update a request of this magnitude with 142 custodians where we are now going to have to go back and interview each custodian to see what additional hard copies he or she may have, we are going to have to go back, get their electronic documents, and load them, and search them, we will have to do a privilege review, we are talking about many months of works, and hundreds and hundreds of thousands of dollars of work. This is not a situation -- I think what Mr. Toal was referring to, if Paul, Weiss comes across a document, someone has a document that we know is responsive, and we have a continuing obligation to produce it, that's a different representation he made than going out and basically redoing this document production that we have been doing for 16 months to update for another year.

With that said, if that is what your Honor wants us to do, we will go out, and we will do it.

THE COURT: That's what I want you to do.

If you are asking me whether I think that the Attorney General is perpetually investigating things that could and should be conclusively resolved through depositions and interrogatories in a much shorter period of time than the Attorney General has already spent investigating this issue, I would tell you the answer to that question is yes. That's beside the point. They have certain statutory powers that I can't --

MR. WELLS: What we will do with the depositions? That's the next implication.

So what's going to happen is they are going to start taking depositions, these four people. I assume they will keep taking depositions. It's going to take us a number of months to re-update, update this production. Then they are going to come back and say they want to depose all the people again because now they have new documents.

So it would seem if that's what they want, that we just go back to square one and put off the depositions because, otherwise, this thing will be a continuous loop (indicating).

THE COURT: I completely understand, which is why I have encouraged the parties to meet and

confer, and save each other a great deal of time and effort, but I don't think the scope of this investigation is so massive, and that issues that they are investigating are so arcane and require such sleuthing to get to the bottom of that, that ExxonMobil's entire business has to be audited, and every document in ExxonMobil's files has to be produced. I think the answers to their questions reside in the minds of a half dozen or more witnesses who they could depose, and are reflected in some manageable number of documents which is a tiny, tiny, tiny fraction of the documents that you have produced and are going to produce. That's very clear to me.

But, again, the Attorney General has certain statutory powers. They are exercising those powers. I can't interfere with their exercise of those powers except to the extent of preventing abuses. So if they want to spend another 18 months doing what they have done for the last 16 months, I am not in a position to stop them from doing that.

But I'm not ordering you to produce any documents from any custodians that aren't responsive to the search terms that they have already agreed to. I am ordering you to produce the additional witnesses to testify about the completion of the responses to their

document requests that you claim are fully complied with, and I am ordering you to update your document production in accordance with their requests.

MR. WELLS: May we have an understanding that the update will be as of today? We need a date from which we are doing this.

THE COURT: Surely it being June of 2017, and this investigation having been ongoing for 16 months, June of 2016 seems like a reasonable cutoff date to me. You can't keep moving the goal post.

MR. OLESKE: You said June of 2016.

THE COURT: I said June of 2016. You can't keep moving the goal posts.

MR. OLESKE: The subpoena was issued in November of 2015. Okay. The events described in the subpoena run all throughout 2016. We are asking for it to be updated to the date of production. If Mr. Wells wants it for the purposes of this order to be today, that's one thing. We don't understand the basis for them only producing between November 2015 and June of 2016.

THE COURT: What do you think has changed in the last six months?

MR. OLESKE: In our documents we show, in our papers we show Exxon has changed its practices and

has modified its representations both in, throughout the course of 2016. That's why documents from 2016 are so vital for our investigation.

THE COURT: You want documents through the conclusion of 2016?

MR. OLESKE: We believe we are entitled to them up to the present day, your Honor.

THE COURT: Look, they cannot and no corporation can be required to produce on a daily or weekly or monthly basis every document that is generated by that corporation.

MR. OLESKE: Your Honor, let me, first, go to the purported unfairness of this.

Exxon did not actually finish its collection of management documents until two months ago. It just deliberately left out the documents from the intervening gap as a matter of policy.

Second, Exxon issued two new reports on this very subject presumably involving these same people with new and different language, with new and different internal policies in April of 2017. There is no legal basis to arbitrarily decide the Attorney General cannot investigate and ask for documents about those representations which link up with all of these other representations that Exxon has on the documents we have

seen so far.

THE COURT: You have those documents.

MR. OLESKE: No, we don't have any documents from 2016 or '17.

THE COURT: You just told me that they changed their practices.

MR. OLESKE: First of all, yes, we know that, for example, in 2016 it appears from what we have seen from PricewaterhouseCoopers, because we did that first as your Honor directed us to do -- your Honor said that these impairment requests, our request number four in your prior order, was not responsive to our first subpoena, that we had to go to Pricewaterhouse and search, which we did, got the documents, we got Pricewaterhouse's documents showing them never doing any of this up to 2016, at least for the PWC documents, and then something changes in 2016, and they start doing something new on this same subject matter.

We don't have any of the documents from Exxon because your Honor told us it wasn't responsive to the first subpoena, and to go to PricewaterhouseCoopers first. We did both of those things. We developed this information inculpating the company. They have continued to make representations to the present day.

We are asking for not just this update, but,

for example, when it comes to impairment, when it comes to Exxon's documents about value, its long-lived assets that were previously ruled not part of the first subpoena, we connected their relevance to our factual basis, we have shown why the subject matter is tied to Exxon's representations and our potential fraud case.

Your Honor had previously precluded us from getting these documents --

THE COURT: I may be obtuse, but it seems to me that you will have these witnesses, and these witnesses have percipient knowledge of Exxon's practices.

MR. OLESKE: They don't have knowledge of that. That's part of the point of these documents. Some of these document requests are not for stuff covered by the first subpoena. They are not -- these witnesses -- this is the other bigger picture, if I can step back for a minute, your Honor.

The standard here for stopping us from any of these requests including the document requests is that it's not going to recover anything, any information that is relevant. In fact, the showing has to be that it's utterly irrelevant to our investigation. Now I understand, your Honor has referred multiple times, so has counsel, to depositions. These are, in fact, not

depositions. These are investigative hearings that the Attorney General has chosen these four witnesses to start with. We have other, many other employees from Exxon --

THE COURT: I am sure you are going to take dozens of --

MR. OLESKE: But we can't decide -- this is the point: Exxon is inviting you into something dangerous here. Exxon is inviting the court to decide how the Attorney General should stage its investigation, and to make judgment calls that we don't really need these documents now to decide what witnesses we will take down the road, we don't need those witnesses now to find out whether or not we heard what we need to hear from these witnesses. One of these document requests is for the documents relevant to the interrogatories that your Honor has already ruled we take.

THE COURT: Look, respectfully, there is a hard way to do things and there is an easy way to do things.

MR. OLESKE: We have been trying --

THE COURT: The easy way to do things, the easy way to do things is to examine witness X, ask witness X, who knows about this, that or the other

thing. Then examine the witnesses who were identified by witness X, and examine each of those witnesses who knows about this, that or the other thing. And if you had done that on day one you would be a thousand yards ahead of where you are today.

MR. OLESKE: Your Honor, with all due respect, that has not been our experience in this investigation. We have examined so far two witnesses in testimony, and, no, it has not been an efficient process, and our discretionary determination during the course of this investigation is that we needed these documents to figure out who to depose, and what questions to ask them, and to be able to evaluate, sorry, to take testimony from and to evaluate their testimony. We still need the documents for the same reason.

There is no legal basis, Exxon has not met any of the legal standards to deny us the factual basis to proceed or to show that these document requests are burdensome in any way. They have not met any of their required factual showings.

THE COURT: You don't think it's burdensome to search 130 custodians?

MR. OLESKE: As a matter of law, your Honor, even if Exxon had come into this with clean hands, as a

matter of law, no. For large companies that are spread all over the world, that have these kinds of operations, and when the allegations of potential fraud cover those operations, the courts have been unified, no, it is not a reason to deny such a request.

Your Honor, more importantly, the fact is, Exxon's hands have not been clean in this. Exxon refused to meet and confer with us about these requests before we came in here. We were happy to talk to Exxon about how these could be staged or prioritized, how they could be narrowed, how the interrogatories could help defer the need for some of the documents. We were happy. They refused, your Honor, and forced us here and now have to substantiate, contrary to the law, each of the bases for our document requests even though in our papers we demonstrated their connection to our factual basis, how they are narrow requests aiming at information that either was improperly withheld the recent documents from the original subpoena or requests that were not covered by the original subpoena that are vital for our continued investigation.

Again, with all respect, this is not a civil discovery dispute where the court has the wide discretion to gauge whether or not in what order it's most efficient for us to obtain discovery. We are

conducting an investigation in which the choice of whether to ask this question or ask for these documents or examine this witness is entrusted to the good faith of our office that we enjoy a presumption of, and that they have not, for all of the sideshow talk, have not overcome that presumption, again, the right way for this to have been done was for them to meet and confer with us, and talk about --

THE COURT: I agree that the parties should have met and conferred, but I believe that I have the inherent authority to assure that there is some degree of proportionality and rationality in the manner in which the investigation is being conducted.

MR. OLESKE: The issue then is, what is the dispute with the proportionality or connection of these specific requests in addition to the updated documents? I mean, we have heard none of that. Exxon has not even tried to give your Honor that.

THE COURT: Okay. I've indicated that you can propound any interrogatories that you want that are fair and non-burdensome and calculated to advance your investigation. I've ordered Exxon to update its production.

If you've identified potential documents that are relevant to your investigation here in open court,

and Exxon is on notice of the existence of such documents, they have an affirmative obligation to produce them.

MR. OLESKE: Not for documents, your Honor, that you have already ruled were not covered by the first subpoena. That's why we issued these updated and renewed document requests, was to obtain beyond the updated information that they owed us and your Honor already ordered. These other subject areas are areas that were not part of the original subpoena, are not part of some obligation for them to make continuing production. As much as unfortunately this may be distasteful to the court, the fact is, we have met our burden. We have a factual basis for these requests. They are connected and focused on that factual basis.

Exxon had a legal obligation to demonstrate how any one of these requests for new information, new documents that were not covered by the original subpoena, at least they argued so far, why any of those are burdensome in the way that meets the standards of the law or disconnected from our factual basis in the way that meets the standards of the law, and they have not done that.

THE COURT: But you can secure, you can secure the information by interrogatory that will

establish to your complete and total satisfaction in a simple response to interrogatory what would take you a man year to figure out by making them spend millions of dollars to produce, you know, another million documents.

MR. OLESKE: A couple of things.

First of all, that simply is not the case with these facts, these documents, and these witnesses. It shouldn't take -- it should not be a legal standard, any substantial interference with Exxon's business given its virtually unlimited resources which the court and counsel have previously noted.

We are only talking now -- presuming that our document request number two, which is -- this is our subpoena which was Exhibit T to Mr. Anderson's affirmation -- our document request number two is for the update. We have addressed that. Our document request number one is for documents relating to or substantiate the answers to our interrogatories. I assume that's not really -- I assume your Honor is okay with us asking for that.

THE COURT: Absolutely.

MR. OLESKE: All we are dealing with now are four document requests. One of them is for, I've identified in our interrogatory. One of the

interrogatories they refused to answer was for a list of people on a committee that handles their reserves. They refused in the meet and confer to give us the list of people.

THE COURT: They have to give you that.

MR. OLESKE: Number three, document request number three is just to add those people, these people that were on the reserve committees that they didn't previously identify, add those people to the prior list. That's number three. That's consistent with your Honor's --

THE COURT: That's consistent with what I have held.

MR. OLESKE: All we are now talking about is request four, five and six.

Number four are those impairment documents that your Honor previously ruled were not part of the subpoena, told us they are the PWC. We did, we found out there was inculpatory information, and now need to see Exxon's documents about it. We have drawn a clear line --

THE COURT: I don't understand. You have the documents from PWC.

MR. OLESKE: Pricewaterhouse's accounting documents about the process of taking impairments, but

we don't have Exxon's documents about that same process where they represented to investors that they have conducted this analysis, and apparently have now changed their mind in the last year, started doing it. We don't have that because your Honor denied our original attempt to enforce the first subpoena as including that subset of documents. We don't have those documents.

You told us to go to Pricewaterhouse first because we had a subpoena to them. We did. We have gone through that. We have found the inculpatory information there and now we need the connected evidence from Exxon. It's a straight line. There is no basis to restrict us from getting those documents from Exxon. That's number four.

Number five, this is amazing, this is the simplest request of all. Exxon refused this in the meet and confer. They can push a button. We asked in number five for documents they produced to the SEC. They have that on a compact disc. They have a disc sitting in their office that is document request them five. They refused to give it to us.

Document request number six, finally, is communications between Exxon and the banks. Again, Exxon's position's not responsive to the first

subpoena. That's a very narrowly identified, easily identifiable set of documents which is Exxon's communications of the facts.

It appears that really our document requests one, two and three the court's already agreed we are entitled to, and four, five and six, I am trying to emphasize here, these are narrow requests, not covered by what your Honor was assuming would be covered by counsel's representations or Exxon's ongoing obligation. These are specifically targeted requests for new documents that were not covered, that we have connected to our factual basis, that Exxon has made no showing of burdensomeness, giving us a copy of the CD. That's what they are here opposing, refusing to meet and confer on.

Your Honor, it's clear that the court has seen this go on, seen us come back here, and your Honor said that the court's not had help from either party in moving the investigation forward. With all respect, we beg to differ. We have been trying very, very hard to move this investigation forward. We are moving forward with the testimony. We are moving forward with the questions. We need to move forward with the documents.

The fact that we are asking to fill in the gaps of our document collection with known relevant

evidence that should be easy get, that we had every legal entitlement to get, it's simply not on Exxon to come into court and say the Attorney General should not run their investigation this way, the Attorney General should wait another two or three months to ask witnesses, and then, oh, yes, of course, you need those documents. That's not from our perspective an efficient way to stage our investigation.

With due respect, it's not a civil discovery proceeding. This is a subpoena compliance proceeding. We demonstrated our legal authority to demand these documents, specifics ones, all of them that we ran through, and, frankly, we don't see how there is a legal basis as opposed to an understandable desire. We share that desire to conclude this investigation, but we have to be able to conclude the investigation within the ambit of our authority that's been properly exercised and exercised with good faith.

THE COURT: Mr. Wells.

MR. WELLS: Well, I thought he was going to try to be practical and propose some type of practical solution. I was wrong. It seems we are back to the very beginning because if you listen to him, he is suggesting that your Honor has now ordered us to engage in months and months of preparing spreadsheets for 12

years of projects, all the underlying documents, because that's what he said. He said, okay, number one is done, number two is done. He is checking boxes like the court ordered something. I told him, I am confused --

THE COURT: I have made it very clear. We are not going for 12 years at every project. I have made that very, very, very clear.

MR. WELLS: Thank you.

So at the moment he checked so many things off. I am not sure what is being ordered and what is not.

I started trying to be cooperative saying we would update. We understand it adds costs, it will take months, and what I hear them saying is no matter how much updating we do, there is always going to be more because we do an Energy Outlook every year. So I guess we are going to be updating for three years, four years. Look, there has got to be a stop date. I believe that there is supposed to be a stop date, and I don't have to go out and redo a multimillion dollar production, multiple times. I don't think that's the law. Listening to him it is clear, whatever we do, we are going to be back arguing about updating again because he does not want any end date.

Maybe what we should do is have your Honor rule, we will go to the Appellate Division, see what the updating rules are, because I don't think they can do what they are saying they can do which is continually make us spend millions and millions of dollars, whether it's a monthly basis or every six months, ad infinitum into the future. I don't think that's rational. I don't think that's proportional.

I tried to be reasonable. Every time that you try to be reasonable, with all due respect with them, you get back because they -- look, this is not a normal investigation. It is a political witch hunt. That's what it is. They cannot clear Exxon. The Attorney General cannot be in a position of clearing the largest fossil fuel oil company in the world. They know it. I know it. So our documents show that we have not done anything wrong, anything.

This investigation started in November 2015. What they said was Exxon knew about secrete science, Exxon was keeping the secret science buried, and going out and being climate deniers. Then after months of looking at our scientific documents they said, oh, we don't want any scientific documents, stop giving us the science because our science shows that Exxon is totally innocent.

Then in August they changed the theory. They went to a stranded asset theory, and we read about it the newspaper. Every time they do something, they go right to the press. We read in the newspaper. Now we will do a stranded asset theory. That goes away.

Now we have a new theory. It's exactly opposite than the first theory. The new theory is, we say in our documents how serious climate change is, but internally we don't pay that much attention to it.

So they totally flip-flopped the theories. We are on the third theory now. There is nothing there. That's why that document that I wanted to go through with your Honor, I won't burden you with it, it's a PricewaterhouseCoopers internal document. It says with respect to proxy costs that that's what is used for projecting demand and ultimately the prices. It says with respect to GHG costs, how we apply them in specific locations, it says Exxon has one of the more conservative proxy costs of any oil company, and Exxon does this in the most conservative fashion.

All of that is in the document I wanted to walk you through. It puts the lie to all of his statements, that they are inculpatory, it's a sham. I mean, they just stand up here as officers of the court and say whatever comes to their minds even if they have

documents that contradict. At the end of the day, I am quite sure, they can't clear us. They can never clear us as innocent as we may be because it's politically unacceptable for them to do it. So we will end up continuing to produce, produce, produce.

THE COURT: Look, the best suggestion that I've heard is the one that you just made, Mr. Wells, which is you can take this to the Appellate Division. Take this to the Appellate Division because we are way beyond proportionality, and in my judgment no reasonable court could conclude that if you are searching for the search terms that they agreed to, and which were subsequently supplemented in the files of 134 people, and you have agreed to update that search through 2016, and they can propound interrogatories, and they can conduct the examination of the four people that they want to conduct to verify that you've fully complied through 2015 with all of their demands, that that isn't reasonable under all the circumstances. And if the Appellate Division decides that they can spend the next three years changing their theory, and imposing additional documentary burdens on you when they are free to depose anybody in their corporation that they choose to for the benefit of several million pages of documents that you have already produced and

the additional documents that you are going to produce, then so be it.

MR. OLESKE: Your Honor, --

THE COURT: That's the ruling of the court.

MR. OLESKE: -- may I respond to this issue of --

THE COURT: Look, you each have the obligation to zealously represent your clients. You have a different view of the world than Mr. Well's client has a view of the world. I'm just trying to call balls and strikes.

MR. OLESKE: Your Honor, I guess my -- part of my point is, I want to clarify first what exactly your Honor's ruling is because my understanding is that your Honor is saying they have to give us the documents that are responsive to our requests, one, two and three which --

THE COURT: No. If your request is that they have to give you information about every project that they have been involved in for the last 12 years, the answer is I absolutely, positively, definitely never intimated, suggested or ruled that that's what they have to do.

MR. OLESKE: I guess what we are a little tied up on is the distinction between our requests for

information and our document requests because your Honor has made it clear that we have the right to ask interrogatories.

THE COURT: Yes, you can ask all the interrogatories you want, and they will respond to those interrogatories. If they fail to respond to those interrogatories reasonably you will be back here, and I am going to sanction them for failing to answer interrogatories to which they have no proper objection.

MR. OLESKE: Does that mean -- we are talking about the interrogatories we have. Does that mean the court is --

THE COURT: To the extent that they have interposed objections, we will have to rule on the objections.

MR. OLESKE: That's not how -- there is no process for objecting to subpoena requests, your Honor. The process is for them to move to quash on a specific basis that they have. We should have met and conferred about it, and they refused.

THE COURT: Yes, you should have met and conferred --

MR. OLESKE: They refused --

THE COURT OFFICER: Counsel.

THE COURT: If they don't want to meet and

confer about it, then we will have to go interrogatory by interrogatory and ascertain whether they should be quashed or not.

MR. OLESKE: Your Honor, it's their burden to do that on their motion to quash, and they didn't, just like they didn't do any of the other things.

The document requests your Honor is talking about quashing here are document requests that are not covered by original subpoena, that we have met all of the legal requirements to show. It's just not that they are not utterly irrelevant, which is the actual standard. We have shown their incredible probative value, how they were not part of the first subpoena, how we need them for our investigation --

THE COURT: We are talking passed each other.

I've granted you the ability to propound any interrogatories you wish that conform to reasonable standards of what an interrogatory can properly request under these circumstances. I've granted you the ability to take the nine depositions that you are seeking, several of which relate to the appropriateness of their compliance with your prior document requests. I've granted you the ability to depose anybody in the Exxon mobile organization whom you need or want to

depose.

MR. OLESKE: One note on the testimony, your Honor. Your Honor mentioned nine witnesses. We should point out that it's been unresolved, but Exxon is resisting producing one of those witnesses for testimony who is a secundate -- I'm sorry -- an employee of Imperial Oil.

THE COURT: I have overruled that. I granted you the depositions of all of these people. All nine of these people, I have granted you the right to propound any interrogatories you wish to propound.

They have undertaken to update the document production pursuant to the original subpoena.

MR. OLESKE: Yes, your Honor.

THE COURT: I believe that that is all you can reasonably ask for, and all you're reasonably entitled to, and if the Appellate Division disagrees, the Appellate Division disagrees.

MR. OLESKE: Can I ask your Honor to consider one thing, to begin with, on the specific request?

Our request number five that your Honor was just talking about quashing is for them to give us a copy of the CD they already have that they produced to the SEC. That's our document request number five.

There is no years of identifying anything. It's pushing a button, giving us a copy. We don't see what the basis for quashing that is given that it's pushing a button.

The other key request here though, what I guess the Attorney General is asking for guidance on, what the basis is for so we know what to do, is these documents that we have been hunting down for impairment purposes, that we, as the court directed because they were not part of the first appeal, went to the PWC, found this inculpatory stuff, and now are going to Exxon looking for those documents. What is the basis for us -- these witnesses will not answer those questions. This is a different subject matter. Why is it -- at what point are we able to get those documents because we feel like we have done what the court asked you us to do to get them. Now we are here, we have made our showing, and there is no legal basis to deny it, except that it's too much.

THE COURT: I think the information is going to be disclosed in response to a properly framed interrogatory.

MR. WELLS: Your Honor, we would like, we would like to be heard on these before you rule in terms of a Canadian employee. We would like to have

argument on that.

THE COURT: All right.

MR. WELLS: We would like to have argument on Dan Bolia who is the internal Exxon lawyer with respect to the compliance because we think that raises attorney-client privilege issues different from the --

THE COURT: I am not overruling any privilege claims that you have which would be asserted in any deposition. I am of the view, which may be one that the AG disagrees with, that the deposition process in this case and interrogatory process in this case is a much more productive, efficient and cost-effective means of securing information that the Attorney General is legitimately entitled to pursue in its investigation. I'm sympathetic to the fact that the document demands are disproportionate to the years in terms of advancing the investigation, but I will hear you.

MR. WELLS: With respect to what was an offer of compromise, I offered to update through 2016.

THE COURT: Yes.

MR. WELLS: I understand they have rejected the offer because they want to be able to get through 2017 and continually --

THE COURT: I am not allowing that. I think

your offer is reasonable. I don't believe that it is your obligation to produce documents as they are generated on a rolling basis. I don't believe that at all.

MR. WELLS: It appears we are on that issue heading to the Appellate Division. I am trying to figure how it's couched. I am being somewhat --

THE COURT: Apparently you are heading to the Appellate Division, and I think I have been very clear that I don't believe that in an investigation that started in 2015 in which you produced millions of pages you have an obligation on a rolling basis to produce documents as they are generated internally in the conduct of ExxonMobil's business. I do believe that you have an obligation to make a continuing production of any relevant documents that they have previously inquired about or come to your attention, and you've voluntarily agreed to produce, to update your production in response to the original subpoena through the end of 2016.

MR. WELLS: Which offer they rejected.

THE COURT: Well, that's the order of the court. That's what will go up to the Appellate Division, the reasonableness of your offer which the court has found to be reasonable.

MR. WELLS: On that -- I don't plan to go out spending money until we figure out what the new dates are.

THE COURT: Nothing is precluding the parties from meeting and conferring and coming to other and different things that have been discussed and ordered this morning.

MR. WELLS: Mr. Toal would like to address the question of the witness who lives in Canada, and also Dan Bolia.

MR. TOAL: Your Honor, starting with the issue of Dan Bolia, this is one of the four depositions the AG requested on the topic called discovery, about our discovery process. Now we think the witnesses who were already provided, Connie Feinstein, a 20 year veteran of Exxon's IT Department, was in charge of implementing holds, and Michele Hirshman, who is my partner, senior partner at Paul, Weiss, who had oversight over the entire discovery process, and signed the affidavit of completion, we think those are more than adequate. They have fully addressed the topics in our submission to the court.

The AG said they were not satisfied with our submission to the court. You found it very detailed. You agreed they should get an affidavit, they should

have the opportunity to test the assertions in the affidavit in the deposition. That's exactly what happened. So those witnesses were able to testify competently about the subjects of the respective affidavits or certifications.

THE COURT: If that's true, Mr. Toal, then these other witnesses are simply going to come in and say everything that the two prior witnesses have testified to is correct, and the AG will have wasted some of its time and a lot of your time.

MR. TOAL: That's part of the problem, your Honor.

THE COURT: I understand. That's what they are seeking. That's what I am granting.

MR. TOAL: So I understand the ruling generally.

Mr. Bolia, is in-house counsel for ExxonMobil. He has day-to-day responsibility for the management of this case. There is a special standard that applies when the opposing part is seeking to depose in-house counsel.

THE COURT: Agreed.

MR. TOAL: That's one that the AG did not even take on in this case. They have to show they have no other means to obtain the information they are

seeking. They have not shown that. They have to show the information sought is relevant and not privileged. They have not shown that. They have to show that the information is crucial to the preparation of its case. They have not shown any of those things.

THE COURT: Nobody is precluding an attorney from asserting attorney-client privilege. Normally that wouldn't attach to knowledge that the attorney has about how documents are being assembled, but we can deal with it on a question-by-question basis if necessary.

MR. TOAL: Thank you, your Honor.

If I could turn to the issue --

THE COURT: I think that the one thing that ExxonMobil wants to nail down here is that you have fully and completely complied with the subpoena. That's the one thing that I would think you would want to have nailed down here, and if it takes seven witnesses for the AG to be satisfied that you have fully complied with the subpoena, the AG is doing you a favor.

MR. TOAL: I don't think the AG has been doing us any favors. I don't think the AG will ever be satisfied. I think part of the game is to impose a burden here. I do think we established through the

affidavits and certifications that we have complied fully with our discovery obligations, and the types of questions that the AG points to that the witness identified somebody else have to do with details. There's been no showing that that information is in any way critical to their evaluation of our compliance with our obligations in the subpoena, and many of them have to do with the internal searches of the management committee custodians which is entirely irrelevant at this point because we redid the entire production of management committee custodians in precisely the way they say it shouldn't have been done.

I don't think these are good faith depositions that have a reasonable basis.

THE COURT: If you are asking me whether this is being handled in a proper, proportional manner, I would tell you I don't think so, but they are entitled to do this.

MR. TOAL: As to the witness from Imperial, one of the witnesses they have sought, one of the substantive witnesses, is a gentleman named Jason Iwanika. Mr. Iwanika is a resident of Canada. He is employed by Imperial Oil, not employed by ExxonMobil. Imperial is a Canadian company. It does business exclusively in Canada. Exxon owns about 69 percent of

its stock. The AG is of the view that ExxonMobil controls Imperial, and, therefore, controls Mr. Iwanika.

The standard for establishing corporate control requires that a subsidiary be operated as a mere department of a parent organization, and in that circumstance the companies have t to have merely identical ownership interest before one corporation is deemed to be a mere department of another. Imperial is not a department of ExxonMobil. It's a separate corporation. Thirty percent of its shares are owned widely on the market. Five of the seven directors have no connection with Exxon, no prior employment history. Exxon does not have the ability to hire, fire or discipline Imperial employees, which is important because that deprives us of any way of compelling Mr. Iwanika to appear.

We can't -- Exxon can't approve Imperial employee expenses and can't enter into agreements on behalf of Imperial. ExxonMobil's policy guidance takes effect at Imperial if and only if Imperial, Imperial's management approves those policies. So the AG has not carried its burden of demonstrating here that Imperial is a mere department of ExxonMobil.

The thing the AG does point to is that Exxon

produced certain documents from Mr. Iwanika. That was pursuant to a request we made for Imperial to make those documents available to us. They did it. At the time they did they said we are doing this as an accommodation both to Exxon and to the New York Attorney General, but this is not going to compel us to make any further productions or to do anything else. They made their determination when the Attorney General requested the presence of Mr. Iwanika in New York for examination. They weren't willing to do that, they weren't willing to make that accommodation, and Exxon does not have the ability to compel an employee of a separate organization to appear. So that's one I just don't think we have the ability to comply with.

MR. OLESKE: Your Honor, I appreciate your Honor's perspective that this has gone on for so long, and seems to the court to be thwarted. Obviously, that's obviously not our belief. We believe we have been as efficient as possible. The difficulty has been in dealing with representations about prior compliance or about matters before the court.

I have got -- counsel testified, like they did in their affidavit and they did in their brief, they have given you attorney attestations to facts. This is Imperial Oil's 10-K (indicating). "By virtue

of majority stock ownership of the company by ExxonMobil, the company's considered to be an entity not controlled by Canadians." The company -- the company is a controlled company for purposes of the New York Stock Exchange and the Toronto Stock Exchange, and Exxon mentions that only two of the seven directors are employees of ExxonMobil. The president of Imperial Oil is not an employee of Imperial Oil. He is an employee of ExxonMobil Corporation. The president of Imperial's salary is paid by ExxonMobil Corporation.

That's kind of a big picture.

THE COURT: You don't have to say any more. I ordered these depositions to proceed.

MR. OLESKE: Thank you, your Honor.

But, your Honor, if I could, I just -- if we dealt with all of the depositions, if we have dealt with -- I presume, and I don't want to presume, I want to clarify with the court, we've propounded these interrogatories. We think they should have met and conferred with us in the first place. Our understanding is that you are ordering, as we asked, for compliance with these interrogatories, but, that, of course, we are going to talk to them about fulfilling those interrogatories. I am asking for guidance on that point.

As to the document requests themselves, I guess I am trying to drill down on, it appears that we have got the court's okay for the ones that we previously discussed, and I'm just getting to these three other ones, the one that's a copy of the SEC documents. I am asking, I guess, is it the court's order that we are not entitled to get that? We are not going to get that information from witnesses. That's a disc of information that they have previously given to another regulator that they have copied.

And the documents, the impairment documents, we have gone through all the other routes the court sent us through to get what we need, that these witnesses are not about, and that we could theoretically could be waiting months and months to depose, to take testimony from witnesses about that in the blind without these documents.

So, again, I understand the court's perspective about the overall duration, millions of pages, although many of these pages are duplicative as you would expect. Putting that aside, these requests are not for everything. It's for copies of a compact disc and for a range of documents that PWC has already produced on, and we have been looking for now for seven months. They refused to give to us when we asked.

Your Honor told us to go somewhere else to look, and we did. Your Honor said you can issue another subpoena, and we did.

So I guess the question is, can we ask the court to reconsider, in addition to the other ones, ordering the reproduction of that one disc or that set of documents given to the SEC, and the production of the documents that we have been trying to get, and that we followed the steps that the court said to follow to get. Now, I mean, based on what the court is saying about we have to stage our investigation a certain way, now we will have to figure out how to identify the witnesses at Exxon for the testimony you are talking about on this impairment issue that weren't covered by the first subpoena because we don't have Exxon's documents from -- we working from PWC's documents.

It doesn't make sense in terms of the very issues that your Honor has talked about. There is no basis to restrict us from getting responses to that request. While at first I understand it seemed, based on Exxon's presentation, we are asking for everything in the world. We have asked for very narrow categories, and we don't see a basis to quash them.

MR. TOAL: Your Honor, I find it difficult to understand how these sets of interrogatories and

these sets of document requests can be characterized as targeted or specific as they attest in their brief. I found that difficult to understand. They seek documents for 12 years concerning virtually every project Exxon has not only pursued, but even considered, every impairment decision, every reserve decision. It's difficult to imagine. If you were trying to come up with a broader subpoena you would be hard-pressed to beat this one.

THE COURT: I agree. I agree.

So what I haven't done is, I haven't ruled interrogatory by interrogatory to the scope of the interrogatories. I have ruled that the AG has broad powers to propound reasonable interrogatories that are relevant and not excessively burdensome. Clearly an interrogatory that asks for information about every project that Exxon has considered and every project that Exxon has pursued in a 12 year period is unreasonable on its face, and such an interrogatory would be quashed. If we are going to have further proceedings about the scope of interrogatories, if you can't work out a meet and confer process, we will have another meeting and I will rule interrogatory by interrogatory.

It's the court's view, right or wrong, you're

free to get guidance from a higher court, that by propounding interrogatories, taking depositions, and obtaining full compliance with the prior subpoena with the search terms that address all of the issues that you are concerned about, you are in a position to get any information that you need. If you disagree, you have recourse.

MR. OLESKE: Your Honor, I guess it's not so much that I disagree. Your Honor keeps pointing out that we have these search terms with the original subpoena. The point is, these requests are for documents not covered by the first subpoena. Your Honor already ruled that --

THE COURT: I just can't believe that you don't have major amounts of information about this subject based on the search terms that you utilized and 134 custodians.

MR. OLESKE: Two things: We are surprised too, although after --

THE COURT: That's why I am giving you leave to conduct the deposition of five people about the appropriateness of the compliance that Exxon has made in terms of your original subpoena.

MR. OLESKE: Right, your Honor.

THE COURT: So if you come back here and you

say we just deposed X, and X has indicated that Exxon wrongfully discarded all of the relevant documents, well, then we will have a different discussion than we are having today.

MR. OLESKE: I apologize, your Honor.

I guess what I am getting at is, you are right, we got that remedy, and we appreciate that, for potential spoliation or noncompliance with the original subpoena. The issue is, these are subject matters that are relevant to our investigation that we have connected and met our legal burden to connect with our investigation that are not covered by, would not be satisfied by the process your Honor is talking about, and one of them is copying the compact disc, and the other is giving us a production that we moved for a year ago, and your Honor gave us instructions on how to get these documents, and we have done that, and are not covered by the process your Honor was talking about is what the basis for us not being able to get those documents. There is -- Exxon has not made any showing that it's not legally required nor to resist these.

In terms of the interrogatories the fact is that it is Exxon that chose to represent to the investors and to the public that it does this for all of its decision. It applies this across its -- and

they represented further that they have a comprehensive computerized system to manage all of this information responding to requests that ask them to give us the data and information for something that we tell the public to do and you tell the public you keep track of vigorously cannot be on its face burdensome.

THE COURT: I agree with that.

As I have said, I have not ruled on any specific interrogatory and I am prepared to rule on interrogatories. Everything that you have just said about, you know, what you might ask in interrogatories or have asked in interrogatories sounds reasonable to me.

MR. OLESKE: The question then on the court's ruling on the interrogatories, is the court denying the motion to quash, granting our motion to compel, and, as we would expect, leaving it to us hopefully this time to meet and confer?

THE COURT: I am leaving it to you to meet and confer with the understanding that if you cannot come to a resolution on interrogatories, we will have and all day session, and I will go through the interrogatories with you one by one and rule on any interrogatory and any subpart. So I am not precluding you from asking by interrogatory anything you want to

ask, and I am not precluding them from moving to quash some, most or all of the interrogatories that you propound.

MR. OLESKE: Understood, your Honor.

THE COURT: I am just ruling that you have an absolute right to propose reasonable interrogatories.

MR. OLESKE: Understood, your Honor.

I guess my question for these document requests is, could I suggest to the court, respectfully, that your Honor at least not quash these requests for these documents?

THE COURT: I am going to leave it to the two of you to have a further meet and confer informed by what we have spent the last two and a half hours discussing. I think you have specific rulings by the court which either party is free to appeal, and general observations by the court which you hopefully take into consideration as you meet and confer.

MR. OLESKE: Your Honor, I don't know what's going to happen with the Appellate Division, but for those purposes, because I hear that at least that will happen, I just want to clarify what the court's rulings are. My understanding is that your Honor has granted our motion to compel on document request number two

which is about the updated documents, but not through the current date, through the end of 2016.

MR. TOAL: Your Honor, this is about the fifth time Mr. Oleske has tried to reframe your ruling.

THE COURT: My rulings are all reflected in the transcript of the proceedings, and it won't be difficult to read the transcript and distill the rulings. I understand that Mr. Oleske is persistent.

MR. OLESKE: I was asking for a question of clarity to determine which issues your Honor has actually made a ruling on as opposed to which issues have been deferred and not ripe for appeal.

THE COURT: What I have ruled is that you are entitled to take nine depositions. I have ruled that you are entitled to propound interrogatories. I have not ruled on any motion to quash any portion of any interrogatory that you ask. That's what you meet and confer on. And I have ruled that Mr. Wells' undertaking to update the production through the end of 2016 of your original subpoena with the search terms that have been used is a reasonable concession by Exxon and is being adopted by order of the court.

MR. OLESKE: Understood, your Honor.

We previously discussed -- that is a modification of our document request number two which

is the updating one that your Honor limited to 2016.

Our document question number three which, I believe, your Honor previously granted was for the updating of the production for the individuals to be listed in response to our interrogatory number nine which asks for a list of people who worked on reserve committees which they have not previously disclosed to us.

THE COURT: I think that's an interrogatory, and I think, maybe I am wrong, I thought Exxon agreed to do that.

MR. OLESKE: The interrogatory asked them to identify the people who served on these committees that they have not identified to us yet, and to produce their documents.

THE COURT: I think that those people need to be identified.

MR. OLESKE: Document request number three is for their responsive documents, for them to tell us who they are, and give us their responsive documents.

THE COURT: That's something you will meet and confer about.

MR. OLESKE: I guess the remaining ones, it's really not a large list --

THE COURT: We will not go through this, the

six items, for the eighth time. I just recited everything that I have ruled. I am not going to do it again.

MR. OLESKE: All I am looking for is whether or not requests four, five and six are being quashed.

THE COURT: They are not being ruled on today in the manner that you want them to be ruled on.

MR. OLESKE: I assume your Honor is directing us to meet and confer about four, five and six.

THE COURT: Yes.

MR. TOAL: We did ask in our motion for a protective order. We have now produced 2.8 million pages of documents. The AG is trying to get production of even more. Your Honor's ruling that we will update the production certainly will result in more documents.

This is highly sensitive corporate information. Each of our production letters expressly advises the New York Lieutenant Attorney General that this is confidential commercial information. It is to the benefit of ExxonMobil's competitors. We invoke the legal protections under New York law for that material to be treated confidentially, and we also reference in each production letter the agreement of the parties that produced documents not be publicly released and

disseminated or publicized.

THE COURT: They have agreed to what you are seeking?

MR. TOAL: They have not. When they filed their opposition brief they appended confidential business information of Exxon to their submission without conferring with us in advance, without giving us any notice, without giving us any opportunity to object and to seek the sealing of these documents which are sensitive.

THE COURT: Mr. Oleske, do you object to this? You agree to keep this information confidential?

MR. OLESKE: Your Honor, okay, we agreed not to disclose documents outside of our investigation to third parties unless we were required to for legal purposes. Exxon came in here and challenged the Attorney General's factual basis for its investigation in a public proceeding. We responded by attaching documents that are not trade secrets, that are simply evidence of Exxon's prospective fraud. Going forward, it is not appropriate to put a blanket seal --

THE COURT: I agree with that.

MR. OLESKE: -- on a case-by-case basis. If Exxon wants to say this particular document is a trade secret and so it should be sealed when it goes into

court, they can make that on a case-by-case basis. If going forward they don't trust us to know what is a trade secret -- now they have not actually moved to seal any of the stuff we did disclose on the basis that it was a trade secret because it wasn't.

The question is, if going forward they want protocol where they have the opportunity to seal documents because they are actually genuine trade secrets as opposed to embarrassing or evidence of fraud, it's going to be hard for us to oppose a mechanism for them to preemptive protect the trade secrets.

MR. TOAL: That's what we are asking for, a mechanism, a ground rule, so we can protect our confidential business information.

MR. OLESKE: There is a big difference between those two things.

THE COURT: I'm assuming, despite the gulf between the parties, that the attorneys are going to act in a professional manner, and if you, Mr. Oleske, have agreed that you are not going to disclose trade secrets of Exxon, I would expect that AG's Office to, at a minimum, advise counsel for ExxonMobil in advance if you are planning to file something that you have any reason to believe Exxon might consider to be a trade

secret.

MR. OLESKE: Understood. If we are talking about --

THE COURT: With respect to what has already been filed, the cat's out of the bag, Mr. Toal.

MR. TOAL: I agree. That's why -- there is nothing we can do. I think this concept is not limited to trade secrets. This is not just the formula for Coca-Cola. This is competitively sensitive information that can be used by a competitors.

THE COURT: I agree with that.

Your agreement with the New York AG seems to cover, you know, any commercially sensitive information and I thought I heard Mr. Oleske say that at a minimum before he files anything in court which is going to be released to the newspapers, before you come to court, that he give you the opportunity to object.

MR. TOAL: Thank you, your Honor, that's what we were looking for.

With respect to the depositions that are upcoming, we would ask --

THE COURT: The same rules apply.

MR. TOAL: Beyond --

THE COURT: The same rules apply. If they elicit testimony that represents trade secrets or

sensitive commercial information, I think Mr. Oleske agreed before he publishes that to the public or files a report, he will extend the courtesy to you to give you the opportunity to seek judicial intervention to prevent that from happening.

MR. TOAL: Thank you, your Honor.

With respect to the length of the depositions, we have depositions coming up. We would ask that depositions presumptively be a day long. We are having witnesses for the most part coming in from Texas. We would agree that the AG --

THE COURT: I don't think he will agree to that. I am not going to order that, but I think you can meet and confer and come to some understanding. Certainly I am not going to allow the AG to depose your witnesses for a week or two weeks.

Again, there is going to be proportionality, and I can't rule in advance that a particular witness is being examined for any excessively long period of time because some of your witnesses may have information on a multitude of subjects, and it may take more than a day to depose them about their knowledge of those subjects.

MR. WELLS: Your Honor, a housekeeping matter. I want to make sure for the record in case

either side goes to the Appellate Division that the slides that I handed to the court and the Pricewaterhouse documents I handed to the court were marked as Exxon exhibits for the purposes of the file.

THE COURT: They have been marked.

MR. OLESKE: And the 10-K from Imperial Oil Ltd. that I referenced, I would like to hand up and have marked, as well.

THE COURT: Okay. You can check with the court reporter before you leave to be sure that everything that you want in the record is in the record.

MS. SHETH: Your Honor, Manisha Sheth, Executive Deputy Attorney General, Economic Justice Division of the AG's Office.

Very briefly, Mr. Wells referred to this as a politically motivated witch hunt. I would like to correct the record on that.

THE COURT: The AG does not agree with that at all.

MS. SHETH: The AG does not agree with that at all. To the contrary, Exxon's behavior in this case has not been consistent with good faith compliance with the subpoena. What we have seen is a slow roll production of responsive documents. The documents that

were produced, many of them do not have anything to do with this investigation.

They withheld and continue to this day to withhold documents on the basis of a purported accountant-client privilege that your Honor as well as the First Department found is improper, and they have now appealed that to the Court of Appeals.

They have sued us in an unprecedented maneuver in a Texas federal court to enjoin our investigation.

One of their counsel has failed to disclose the existence of an e-mail of their CEO, the former CEO, and then joked about it at her deposition saying that she thought it was a test to see if the Attorney General would find those documents interesting, and whether the Attorney General was even reviewing the documents they produced. As a result, documents of the CEO were destroyed, and they have not put forth a witness who can discuss fully the destruction of these documents.

THE COURT: This is why you are taking these other five depositions.

If you're asking me to state on the record that Exxon has behaved in an exemplary manner, I decline to do so. If Exxon is asking me to state on

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the record that the New York AG has pursued in an exemplary manner, I decline to do that also.

MS. SHETH: Thank you, your Honor. I do want to put that on the record.

MR. WELLS: Can we stipulate that Exxon totally disagrees with all of her comments?

THE COURT: All right.

Thank you very much. I always enjoy seeing you. Have a nice day and nice weekend.

(Received and marked Attorney General Exhibit Number 1 marked in evidence)

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C E R T I F I C A T E

I, Terry-Ann Volberg, C.S.R., an official court reporter of the State of New York, do hereby certify that the foregoing is a true and accurate transcript of my stenographic notes.

_____
Terry-Ann Volberg, CSR, CRR
Official Court Reporter.

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Exhibit S51

Release No. 78 (S.E.C. Release No.), Release No. 8995, Release No. 59192, Release No. 33-8995, Release No. 34-59192, Release No. FR - 78, 94 S.E.C. Docket 3099, 94 S.E.C. Docket 3235, 2008 WL 5423153
17 CFR Parts 210, 211, 229, and 249

S.E.C. Release No.
Securities Act of 1933
Securities Exchange Act of 1934
Financial Reporting

SECURITIES AND EXCHANGE COMMISSION (S.E.C.)

MODERNIZATION OF OIL AND GAS REPORTING

File No. S7-15-08
RIN 3235-AK00
December 31, 2008

***1 AGENCY:** Securities and Exchange Commission.

ACTION: Final rule; interpretation; request for comment on Paperwork Reduction Act burden estimates.

SUMMARY: The Commission is adopting revisions to its oil and gas reporting disclosures which exist in their current form in Regulation S-K and Regulation S-X under the Securities Act of 1933 and the Securities Exchange Act of 1934, as well as Industry Guide 2. The revisions are intended to provide investors with a more meaningful and comprehensive understanding of oil and gas reserves, which should help investors evaluate the relative value of oil and gas companies. In the three decades that have passed since adoption of these disclosure items, there have been significant changes in the oil and gas industry. The amendments are designed to modernize and update the oil and gas disclosure requirements to align them with current practices and changes in technology. The amendments concurrently align the full cost accounting rules with the revised disclosures. The amendments also codify and revise Industry Guide 2 in Regulation S-K. In addition, they harmonize oil and gas disclosures by foreign private issuers with the disclosures for domestic issuers.

DATES: Effective Date: January 1, 2010.

Comment Date: Comments on the Paperwork Reduction Act Analysis should be received on or before [insert 30 days after date of publication in the Federal Register].

ADDRESSES: Comments may be submitted by any of the following methods:

Electronic comments:

• Use the Commission's Internet comment form (http:// www.sec.gov/rules/proposed.shtml); or

• Send an e-mail to rule-comments@sec.gov. Please include File Number S7-15-08 on the subject line; or

• Use the Federal e-Rulemaking Portal http://www.regulations.gov. Follow the instructions for submitting comments.

Paper comments:

• Send paper submissions in triplicate to Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

All submissions should refer to File Number S7-15-08. This file number should be included on the subject line if e-mail is used. To help us process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (http://www.sec.gov/rules/concept.shtml). Comments also are available for public inspection and copying in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. All comments received will be posted without change; we do not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly.

***2 FOR FURTHER INFORMATION CONTACT:** Ray Be, Special Counsel, Office of Chief Counsel at (202) 551-3500; Dr. W. John Lee, Academic Petroleum Engineering Fellow, or Brad Skinner, Senior Assistant Chief Accountant, Office of Natural Resources and Food at (202) 551-3740; Leslie Overton, Associate Chief Accountant, Office of Chief Accountant for the Division of Corporation Finance at (202) 551-3400, Division of Corporation Finance; or Mark Mahar, Associate Chief Accountant, Jonathan Duersch, Assistant Chief Accountant, or Doug Parker, Professional Accounting Fellow, Office of the Chief Accountant at (202) 551-5300; U.S. Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-3628.

SUPPLEMENTAL INFORMATION: We are adopting amendments to Rule 4-10[1] of Regulation S-X[2] and Items 102, 801 and 802[3] of Regulation S-K.[4] We also are adding new Subpart 1200, including Items 1201 through 1208, to Regulation S-K.

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I. Introduction

A. Background

On June 26, 2008, the Commission issued a proposing release (Proposing Release) seeking public comment on proposed amendments to the disclosure requirements regarding oil and gas companies.[5] These proposals encompassed issues that were previously addressed more generally in a concept release that the Commission issued on December 12, 2007 (Concept Release),[6] which solicited comment on possible revisions to the oil and gas reserves disclosure requirements specified in Rule 4-10 of Regulation S-X[7] and Item 102 of Regulation S-K.[8] The Proposing Release also contained proposals not addressed by the Concept Release related to the updating and codification of Industry Guide 2.

We initially adopted our oil and gas disclosure requirements in 1978 and 1982.[9] Since that time, there have been significant changes in the oil and gas industry and markets, including technological advances, and changes in the types of projects in which oil and gas companies invest their capital.[10] Prior to our issuance of the Concept Release and the

Proposing Release, many industry participants had expressed concern that our disclosure rules are no longer in alignment with current industry practices and therefore limit their usefulness to the market and investors. [11]

B. Issuance of the Concept Release

The Concept Release addressed the potential implications for the quality, accuracy and reliability of oil and gas disclosure if the Commission were to:

• Revise the definition of "proved reserves" in our rules, in particular, the criteria used to assess and quantify resources that can be classified as proved reserves; and

• Expand the categories of resources that may be disclosed in Commission filings to include resources other than proved reserves.

In addition, the Concept Release questioned whether our revised disclosure rules should be modeled on any particular resource classification framework currently being used within the oil and gas industry. We also asked how any revised disclosure rules could be made flexible enough to address future technological innovation and changes within the oil and gas industry. The Concept Release sought further comment on whether the Commission should require independent third-party assessments of reserves estimates that a company includes in its filings.

In response to the Concept Release, commenters submitted 80 comment letters. [12] We received comment letters from a variety of industry participants such as accounting firms, engineering consulting firms, domestic and foreign oil and gas companies, federal government agencies, individuals, law firms, professional associations, public interest groups, and rating agencies. We considered these comments and addressed many of them in issuing the Proposing Release.

C. Overview of the Comment Letters Received on the Proposing Release

***5** The Proposing Release sought significantly more detailed comment on issues raised in the Concept Release, as well as proposed amendments to the disclosure items in our rules and Industry Guide 2. In response to the Proposing Release, we received 65 comment letters, again from a variety of constituents with interests in oil and gas industry disclosure.

Almost all commenters supported some form of revision to the current oil and gas disclosure requirements, particularly given the length of time that has elapsed since the requirements were initially adopted. [13] Commenters provided significantly more detailed comments on the Proposing Release than on the Concept Release, which did not include specific proposed regulatory text. We discuss those comments in detail in the relevant sections of this release. However, in general, commenters focused on several key issues raised by the Proposing Release. These issues included the following:

• The proposal to permit disclosure of probable and possible reserves;

• The proposed use of average historical prices to represent existing economic conditions to determine the economic producibility of oil and gas reserves for disclosure purposes while continuing to use a single day year-end price to determine the economic producibility of reserves for accounting purposes;

• The proposed inclusion of bitumen, oil shales, and other resources in the definition of "oil and gas producing activities";

• The proposed provision to broaden the types of technology that a company may use to establish reserves estimates and categories;

• The proposed change in the definition of proved undeveloped reserves to eliminate the "certainty" requirement; and

• The increased detail of disclosure that would be required as a result of our proposed definition of "geographic location."

II. Revisions and Additions to the Definition Section in Rule 4-10 of Regulation S-X

A. Introduction

The revisions and additions to the definition section in Rule 4-10(a) of Regulation S-X [14] update our reserves definitions to reflect changes in the oil and gas industry and markets and new technologies that have occurred in the decades since the current rules were adopted. Many of the definitions are designed to be consistent with the Petroleum Resource Management System (PRMS). [15] Among other things, the revisions to these definitions address four issues that have been of particular interest to companies, investors, and securities analysts:

• The use of single-day year-end pricing to determine the economic producibility of reserves;

• The exclusion of activities related to the extraction of bitumen and other "non-traditional" resources from the definition of oil and gas producing activities;

• The limitations regarding the types of technologies that an oil and gas company may rely upon to establish the levels of certainty required to classify reserves; and

***6** • The limitation in the current rules that permits oil and gas companies to disclose only their proved reserves.

The revisions of, and additions to, the Rule 4-10 definitions attempt to address these issues without sacrificing clarity and comparability, which provide protection and transparency to investors. In addition, to the extent appropriate, we have revised our proposals so that the final definitions are more consistent with terms and definitions in the PRMS to improve compliance and understanding of our new rules.

B. Pricing Mechanism for Oil and Gas Reserves Estimation

1. 12-month average price

The final rules define the term "proved oil and gas reserves" in part as "those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible—from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations— prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation." The definition states that the economic producibility of a reservoir must be based on existing economic conditions. It specifies that, in calculating economic producibility, a company must use a 12-month average price, calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month within the 12-month period prior to the end of the reporting period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. [16]

Most commenters supported the use of a 12-month average price to serve as a proxy for existing economic conditions to determine the economic producibility of reserves. [17] Some noted that a 12-month average price is considered to reflect "current economic conditions" by PRMS. [18] They noted that the use of an average price would reduce the effects of short term volatility [19] and seasonality, [20] while maintaining comparability of disclosures among companies. [21]

Seven commenters recommended the use of first-of-the-month prices [22] instead of the proposed use of end-of-the-month prices because the use of first-of-the-month prices would provide companies with more time to estimate their reserves [23] and they thought that these prices better reflect the actual price received under typical natural gas contracts. [24] Conversely, six commenters recommended the use of a 12-month daily average price [25] because they thought that a daily average price would be more appropriate than a monthly average price. These commenters noted that oil sales contracts often are based on daily averages. [26] Two commenters expressed concern that end-of-the-month prices are not representative of actual prices because commodity traders often "clear their books" at the end of the month. [27]

***7** One commenter opposed the use of average prices stating that, conceptually, the use of average prices is poor regulatory policy and may encourage the market to pressure standard setters to use historical average prices for financial instruments and other assets and liabilities associated with volatile markets. [28] It noted that volatility reflects the underlying economics of the oil and gas industry. [29]

The objective of reserves estimation is to provide the public with comparable information about volumes, not fair value, of a company's reserves available to enable investors to compare the business prospects of different companies. The use of a 12-month average historical price to determine the economic producibility of reserves quantities increases comparability between companies' oil and gas reserve disclosures, while mitigating any additional variability that a single-day price may have on reserve estimates. Although oil and gas prices themselves are subject to market-based volatility, the estimation of reserves quantities based on any historical price assumption determines those reserves quantities as if the oil or gas already has been produced, even though they have not, and these measures do not attempt to portray a reflection of their fair value. If the objective of reserve disclosures were to provide fair value information, we believe a pricing system that incorporates assumptions about estimated future market prices and costs related to extraction could be a more appropriate basis for estimation.

In order to provide disclosures which are more consistent with the objective of comparability, the amendments state that the existing economic conditions for determining the economic producibility of oil and gas reserves include the 12-month average price, calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month within the 12-month period prior to the end of the reporting period. [30] For example, a company with a reporting year end of December 31 would determine its reserves estimates for its annual report based on the average of the prices for oil or gas on the first day of every month from January through December. Therefore, the use of a 12-month average price provides companies with the ability to efficiently prepare useful reserve information without sacrificing the objective of comparability. We believe that the revised definition of the term "proved oil and gas reserves" will provide investors with improved reserves information thereby enhancing their ability to analyze the disclosures.

2. Prices used for disclosure and accounting purposes

A proposal that resulted in significant comment was the use of a 12-month average price to estimate reserves for disclosure purposes, but a single-day, year-end price for accounting purposes. [31] All commenters addressing the issue of using different prices to determine reserves for disclosure and accounting opposed the proposal. [32] We are not adopting this aspect of the proposal. Instead, we are revising both our disclosure rules and our full-cost accounting rules related to oil and gas reserves to use a single price based on a 12-month average. [33] We also will continue to communicate with the FASB staff to align their accounting standards with these rules.

***8** Commenters pointed out that the use of two different prices for disclosure and accounting purposes could:

• Confuse investors and other users of financial statements. [34]

• Create misleading information; [35]

• Harm comparability; [36]

• Decrease transparency; [37]

• Increase costs and burden significantly; [38]

• Increase the complexity of disclosures; [39]

• Double record-keeping burden; [40]

• Require more disclosure to explain the differences in reserves estimates; and [41]

• Break the connection between disclosures and accounting. [42]

Some commenters noted that the disclosure and accounting rules and guidance do not use a different pricing method in other situations. [43] In addition, several commenters believed that changing to the use of an average price to estimate proved reserves would have a minimal impact on depreciation and net income. [44] We believe that changing the rules to use a 12-month average price in reserves estimations is not inconsistent with the principles and objectives of financial reporting in authoritative accounting guidance.

With respect to accounting pronouncements that currently make reference to a single-day pricing regime with respect to oil and gas reserves, we are communicating with the FASB staff to align the standards used in its pronouncements with the 12-month average price used in our new rules, as several commenters recommended. [45] As discussed in more detail below, we are adopting a compliance date that will provide sufficient time to coordinate such activities with the FASB. However, as we discuss our revisions with the FASB, we will consider whether to delay the compliance date further.

3. Alternate pricing schemes

Some commenters on the Proposing Release believed that oil and gas futures prices, or management's forecast of future prices, would better represent the value of the reserves [46] and be better aligned with fair value of the reserves. [47] They indicated that management uses futures prices, not historical prices, in its planning and day-to-day decision making. [48] They suggested that the use of futures prices, combined with disclosure of how management made the estimates, would provide greater transparency [49] and comparability of disclosure. [50] One noted that historical prices have little to do with a company's future investments and values. [51] Another commenter noted that differentials can be calculated through established accounting procedures under SFAS 157. [52]

However, other commenters argued that futures prices are not available for all reserves locations [53] and that applying differentials to prices would require subjective estimates and reduce comparability among companies. [54] Two commenters noted that standard prices are not consistently available in some geographic regions. [55] Similarly, two commenters were concerned that futures price estimates would have to be accompanied by estimates of future costs, which they thought would be very subjective and not comparable for determining future economic conditions. [56] One

commenter asserted that the use of future prices would require companies to document assumptions about future costs, or else the disclosure would be very inconsistent among reporting companies. [57] Three commenters believed that futures prices are more subject to market perceptions than market realities and are seldom used in actual physical trading of oil and gas. [58]

***9** We share the concerns of many of these commenters that determinations of expected future prices could require significant estimations which could fall into a wide, albeit reasonable, range. For example, in many situations and parts of the world, natural gas is sold through longer term contracts where observable market inputs are not widely available. As a result, there could be less comparability among different companies depending on their assumptions, which are inherent in determining futures prices. Difference in assumptions between companies could reduce the comparability of reserves information between those companies.

We believe that the purpose of disclosing reserves estimates is to provide investors with information that is both meaningful and comparable. The reserves estimates in our disclosure rules, however, are not designed to be, nor are they intended to represent, an estimation of the fair market value of the reserves. Rather, the reserves disclosures are intended to provide investors with an indication of the relative quantity of reserves that is likely to be extracted in the future using a methodology that minimizes the use of non-reserves-specific variables. By eliminating assumptions underlying the pricing variable, as any historical pricing method would do, investors are able to compare reserves estimates where the differences are driven primarily by reserves-specific information, such as the location of the reserves and the grade of the underlying resource. We recognize that energy markets are continuing to develop. Therefore, we are not adopting a rule that requires companies to use futures prices to estimate reserves at this time.

4. Time period over which the average price is to be calculated

Numerous commenters on the Proposing Release recommended that the 12-month period used to calculate the average price for estimating reserves should not coincide with the fiscal year, as we proposed. [59] Most of these commenters recommended a 12-month period running from the beginning of the fourth quarter of the prior fiscal year through the end of the third quarter of the present fiscal year. For example, for a company with a fiscal year end of December 31, the relevant 12-month period would span from October 1 of the prior year to September 30 of the fiscal year covered by the annual report. [60] Several commenters suggested that we provide a two-month buffer between the end of the measurement period and the end of the company's fiscal year so that reserves estimates would be based on prices from November 1 through October 31 by a company with a fiscal year ending on December 31. [61] Commenters attributed the need for a buffer period to the accelerated filing dates for annual reports [62] and stated that they expected that the additional time would result in better, more accurate disclosure. [63] Others noted that some agreements, like production sharing contracts and other complex concession agreements, can make calculations difficult. [64] One commenter also noted that shifting the relevant measurement period so that it ends three-months prior to the fiscal-year end would align economic calculations with technical calculations, which typically occur at the end of the third quarter. [65]

***10** As noted above, we have considered all of these recommendations. We are adopting a pricing formula based on the average of prices at the beginning of each month in the 12-month period prior to the end of the reporting period. A number of commenters believed that the use of first-of-the-month prices essentially would provide companies with one month more to prepare the reserves disclosures, [66] while still aligning the time period with the fiscal year. [67] We agree with the commenters that such an average will provide companies more time to prepare more accurate disclosure, while still tying the pricing formula to the period covered by the annual report.

C. Extraction of Bitumen and Other Non-Traditional Resources

1. Definition of "oil and gas producing activities"

Our current definition of "oil and gas producing activities" explicitly excludes sources of oil and gas from "non-traditional" or "unconventional" sources, that is, sources that involve extraction by means other than "traditional" oil and gas wells. [68] These other sources include bitumen extracted from oil sands, as well as oil and gas extracted from coal and shales, even though some of these resources are sometimes extracted through wells, as opposed to mining and surface processing. However, such sources are increasingly providing energy resources to the world due in part to advancements in extraction and processing technology. [69] Therefore, the rules we adopt today revise the definition of "oil and gas producing activities" to include such activities. [70]

All commenters on this issue supported including the extraction of unconventional resources as oil and gas producing activities. [71] They believed that such inclusion would greatly improve the quality and completeness of the disclosures. [72] Eight commenters noted that inclusion would better align disclosure with the way that companies view their operations. [73] Some noted that, although the distinction was reasonable decades ago when traditional resources dominated oil and gas production, the reality of today is that such unconventional resources are mainstream and companies invest significant amounts of capital to develop these resources. [74]

The revised definition of "oil and gas producing activities" that we adopt today includes the extraction of the non-traditional resources described above. [75] This amendment is intended to shift the focus of the definition of "oil and gas producing activities" to the final product of such activities, regardless of the extraction technology used. The amended definition states specifically that oil and gas producing activities include the extraction of saleable hydrocarbons, in the solid, liquid, or gaseous state, from oil sands, shale, coalbeds, or other nonrenewable natural resources which are intended to be upgraded into synthetic oil or gas, and activities undertaken with a view to such extraction. [76]

Currently, two types of natural resources pose a unique problem to establishing oil and gas reserves. Coal and, to a lesser degree, oil shale are used both as direct fuel and as feedstock to be converted into oil and gas. In response to our request for comment on how best to treat these resources, several commenters recommended that the extraction of coal [77] and oil shale [78] be categorized based on the final product. One commenter noted that investment decisions are based on the value and disposition of the final product. [79] We agree with these commenters and have revised the proposal to require a company to include coal and oil shale that is intended to be converted into oil and gas as oil and gas reserves. The adopted rules also, however, prohibit a company from including coal and oil shale that is not intended to be converted into oil and gas as oil and gas reserves.

2. Disclosure by final products

***11** We proposed that disclosure of reserves would be organized based on the pre-processed resource extracted from the ground. For example, under the proposal, a company that extracted bitumen and processed that bitumen into synthetic crude oil in its own processing plant would have had to base its reserves disclosure on the amount of bitumen that was economically producible, not taking into account the economics of the processing plant. This proposal was consistent with our traditional separation of "upstream" activities such as drilling and producing oil and gas from "downstream" activities such as refining. Distinguishing between traditional resources and unconventional resources can be significant to investors because unconventional resources often involve significantly different economics and company resources than oil and gas from traditional wells.

Several commenters disagreed with our proposal, recommending that the determining factor should be the final product. [80] They believed that a company should be able to consider the prices of self-processed resources when

estimating oil and gas reserves because the economics of the processing plant are critical to the registrant's evaluation of the economic producibility of the resources. [81] One commenter was concerned that distinguishing bitumen or other intermediate product from traditional oil and gas creates a false and misleading sense of comparability because producers that upgrade bitumen and sell synthetic crude do not face the same risks and rewards as do producers who sell the bitumen itself. [82]

We are persuaded by these commenters. However, we believe that the distinction between a company's traditional and unconventional activities is an important one from an investor's perspective because many of the unconventional activities are costlier and, therefore, have a much higher threshold of economic producibility. Therefore, we are revising the proposed table in Item 1202 to require separation of reserves based on final product, but distinguishing between final products that are traditional oil or gas from final products of synthetic oil or gas. We believe that with this separate disclosure, investors will be able to identify resources in projects that produce synthetic oil or gas that may be more sensitive to economic conditions from other resources.

In addition, as proposed, we are amending the definition of "oil and gas producing activities" to include activities relating to the processing or upgrading of natural resources from which synthetic oil or gas can be extracted. However, the definition would continue to exclude:

• Transporting, refining, processing (other than field processing of gas to extract liquid hydrocarbons by the company and the upgrading of natural resources extracted by the company other than oil or gas into synthetic oil or gas) or marketing oil and gas;

• The production of natural resources other than oil, gas, or natural resources from which synthetic oil and gas can be extracted; and

***12** • The production of geothermal steam.

D. Proved Oil and Gas Reserves

We proposed to significantly revise the definition of "proved oil and gas reserves." We are adopting that definition, substantially as proposed. [83] However, as noted above, we have decided to base the price used to establish economic producibility on the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period.

One commenter recommended against using an average price to calculate existing economic conditions if the price is set by contractual arrangements. [84] We agree that under such circumstances, the appropriate price to use for establishing economic producibility is the price set by those contractual arrangements. Therefore, we have revised the definition to reflect that situation. [85]

The existing definition of the term "proved oil and gas reserves" incorporates certain specific concepts such as "lowest known hydrocarbons" which limit a company's ability to claim proved reserves in the absence of information on fluid contacts in a well penetration, [86] notwithstanding the existence of other engineering and geoscientific evidence. [87] We proposed revisions to the definition that would permit the use of new reliable technologies to establish the reasonable certainty of proved reserves. The proposed revisions to the definition of "proved oil and gas reserves" also included provisions for establishing levels of lowest known hydrocarbons and highest known oil through reliable technology other than well penetrations. We are adopting those revisions as proposed.

We also are adopting, as proposed, revisions that permit a company to claim proved reserves beyond those development spacing areas that are immediately adjacent to developed spacing areas if the company can establish with reasonable certainty that these reserves are economically producible. [88] These revisions are designed to permit the use of alternative technologies to establish proved reserves in lieu of requiring companies to use specific tests. In addition, they establish a uniform standard of reasonable certainty that applies to all proved reserves, regardless of location or distance from producing wells.

E. Reasonable Certainty

Both the existing definition of the term "proved oil and gas reserves," and the definition of that term that we are adopting in this release, rely on the term "reasonable certainty," which previously was not defined in Rule 4-10. In the Proposing Release, we proposed to define the term "reasonable certainty" as "much more likely to be achieved than not" to avoid ambiguity in that term's meaning. However, several commenters recommended that the rules mirror the PRMS definition more closely. [89] Four commenters were concerned that a different definition from the PRMS would cause confusion. They recommended using the PRMS standard of "high degree of confidence that the quantities will be recovered." [90] One commenter recommended that, because the proposed definition is new, the Commission should adopt a safe harbor, to avoid potential uncertainty until a court interprets the phrase. [91] But others believed that the proposed definition is consistent with the PRMS definition. [92] One commenter opined that the concept of estimated ultimate recovery (EUR) is appropriate to establish proved oil and gas reserves. [93]

***13** We believe that the terms "high degree of confidence" from the PRMS and "much more likely to be achieved than not" in our proposal have the same meaning. Our proposed language was not intended to change the level of certainty required to establish reasonable certainty. However, we agree that the use of terminology that is consistent with the PRMS will assist in the understanding of those terms. Therefore, we are adopting the "high degree of confidence" standard that exists in the PRMS. We also are clarifying that having a "high degree of confidence" means that a quantity is "much more likely to be achieved than not, and, as changes due to increased availability of geoscience (geological, geophysical, and geochemical), engineering, and economic data are made to estimated ultimate recovery (EUR) with time, reasonably certain EUR is much more likely to increase or remain constant than to decrease" to provide elaboration to the definition of reasonable certainty.

We are adopting a definition of "reasonable certainty" that addresses, and permits the use of, both deterministic methods and probabilistic methods for estimating reserves, as proposed. Nine commenters supported permitting the use of either deterministic methods or probabilistic methods. [94] One commenter believed that each method may be more appropriate for different situations. [95] Other commenters also supported the proposed alignment of the definitions of those terms with the definitions in the PRMS definitions. [96] The definition that we are adopting states that, if deterministic methods are used, reasonable certainty means a high degree of confidence that the quantities will be recovered. [97] Consistent with the PRMS definition, if probabilistic methods are used, there should be at least a 90% probability that the quantities actually recovered will equal or exceed the estimate.

F. Developed and Undeveloped Oil and Gas Reserves

We proposed to revise the definitions of the terms "proved developed oil and gas reserves" and "proved undeveloped oil and gas reserves." One commenter noted that the terms "developed" and "undeveloped" are not restricted to proved oil and gas reserves, but could apply to all classifications of reserves, including probable and possible reserves. [98] We agree with that commenter. Although the development of a prospect may provide the company with more information and data to determine reserves amounts more accurately, companies may estimate proved, probable, and possible volumes

regardless of the development stage. In the past, these terms were linked to the concept of proved reserves because our disclosure rules permitted the disclosure only of proved reserves. In light of our revision to allow disclosure of probable and possible reserves, the final rules define the terms "developed oil and gas reserves" and "undeveloped oil and gas reserves" to indicate that the development status of the reserves is relevant to all classifications of oil and gas reserves. [99]

1. Developed oil and gas reserves

***14** Other than the change discussed above to eliminate "proved" from the term being defined, we are adopting a definition of "developed oil and gas reserves" substantially as proposed. We proposed to define the term "proved developed oil and gas reserves" as proved reserves that: 29

• In projects that extract oil and gas through wells, can be expected to be recovered through existing wells with existing equipment and operating methods; and

• In projects that extract oil and gas in other ways, can be expected to be recovered through extraction technology installed and operational at the time of the reserves estimate.

Two commenters suggested that, consistent with the PRMS, reserves should be considered developed if the cost of any required equipment is relatively minor compared to the cost of a new well or the installed equipment. [100] Again, we agree that consistency with PRMS would improve compliance with our rules. In addition, such a revision is consistent with our existing definition of the term "proved undeveloped reserves" which includes reserves on which a well exists, but a relatively "major" expenditure is required for recompletion. [101] Therefore, the final rules provide that reserves also are developed if the cost of any required equipment is relatively minor compared to the cost of a new well. [102]

2. Undeveloped oil and gas reserves

In the Proposing Release, we proposed a significantly revised definition of the term "proved undeveloped oil and gas reserves." The most significant aspect of the proposed revision was the replacement of the existing "certainty" test for areas beyond one offsetting drilling unit [103] from a productive well with a "reasonable certainty" test.

Currently, the definition of the term "proved undeveloped reserves" imposes a "reasonable certainty" standard for reserves in drilling units immediately adjacent to the drilling unit containing a producing well and a "certainty" standard for reserves in drilling units beyond the immediately adjacent drilling units. [104] All commenters on this issue supported the proposal. [105] Three commenters noted that a single standard—reasonable certainty— should apply to all proved reserves. [106] We are adopting this aspect of the definition as proposed.

Many commenters opposed the proposed language that would have imposed a five-year limit on maintaining undeveloped reserves unless "unusual" circumstances existed. [107] They asserted that large projects, projects in remote areas, and projects in continuous accumulations, such as oil sands, typically take more than five years to develop, but they do not view such projects as "unusual." [108] One commenter noted that the proposed rule is not consistent with the PRMS, which uses the term "specific circumstances," rather than "unusual circumstances." [109] Other commenters suggested that we require the company to explain why it has not developed any undeveloped reserves for more than five years. [110] The intent of the proposal was not to exclude projects that typically take more than five years to develop from being considered reserves. We agree that the rule should allow the recognition of reserves in projects that are expected to run more than five years, regardless of whether "unusual" circumstances exist. Therefore, we have revised the rule to

replace the term "unusual" with the term "specific." [111] We note that, as proposed, Item 1203 of Regulation S-K would require disclosure regarding why such undeveloped reserves have not been developed. [112]

***15** We also proposed to broaden the definition of the term "proved undeveloped reserves" to permit a company to include, in its undeveloped reserves estimates, quantities of oil that can be recovered through improved recovery projects and to expand the technologies that a company can use to establish reserves. Under the existing definition, a company can include such quantities only if techniques have been proved effective by actual production from projects in the area and in the same reservoir. As proposed, we are expanding this definition of the term "undeveloped oil and gas reserves" to permit the use of techniques that have been proved effective by actual production from projects in the same reservoir or an analogous reservoir or "by other evidence using reliable technology that establishes reasonable certainty." [113]

We also are making other, less substantive revisions to the definition of "undeveloped oil and gas reserves." First, commenters suggested that we use the term "development spacing" [114] or "drainage areas" [115] instead of "drilling units" because the term "drilling units" is only relevant in jurisdictions that establish such units. They noted that many foreign jurisdictions do not establish such units. We concur with those commenters and have replaced the term "drilling units" with the term "development spacing areas."

One commenter also noted that the PRMS guidance on the use of analogs for improved recovery projects does not limit such use to "within the immediate area" and recommended that we delete this phrase from the definition. [116] Again, we agree that consistency with PRMS would be beneficial in this instance and have deleted that phrase from the definition. We also have eliminated two paragraphs of the proposed definition because they were largely repetitive of other aspects of the definition and were unnecessary. [117]

G. Reliable Technology

1. Definition of the term "reliable technology"

We are adopting, substantially as proposed, a new definition of "reliable technology" that would broaden the types of technologies that a company may use to establish reserves estimates and categories. All commenters on this topic supported the proposed principles-based definition for reliable technology. [118]

The current rules limit the use of alternative technologies as the basis for determining a company's reserves disclosures. For example, under the current rules, a company must use actual production or flow tests to meet the "reasonable certainty" standard necessary to establish the proved status of its reserves. [119] Similarly, the current rules provide bright line tests for determining fluid contacts, such as lowest known hydrocarbons and highest known oil, which establish the volume of the hydrocarbons in place.

We recognize that technologies have developed, and will continue to develop, improving the quality of information that can be obtained from existing tests and creating entirely new tests that we cannot yet envision. Thus, the new definition of the term "reliable technology" permits the use of technology (including computational methods) that has been field tested and has demonstrated consistency and repeatability in the formation being evaluated or in an analogous formation. This new standard will permit the use of a new technology or a combination of technologies once a company can establish and document the reliability of that technology or combination of technologies.

***16** We are adopting certain revisions to our proposed definition of the term "reliable technology." The proposal also would have required reliable technology to be "widely accepted." However, some commenters were concerned

that this requirement would exclude proprietary technologies that companies develop internally that have proven to be reliable. [120] We concur with these commenters and have removed the "widely accepted" requirement from the final rule.

We also proposed to define the term "reliable technology," expressed in probabilistic terms, as technology that has been proven empirically to lead to correct conclusions in 90% or more of its applications. Several commenters expressed concern that this proposed 90% threshold would be difficult to verify and support on an ongoing basis. [121] We agree that a bright line test would be difficult to apply to a particular technology or mix of technologies to determine their reliability. Therefore, we are not adopting the 90% threshold as part of the definition.

2. Disclosure of technologies used

The proposal would have required a company to disclose the technology used to establish reserves estimates and categories for material properties in a company's first filing with the Commission and for material additions to reserves estimates in subsequent filings because, under the proposal, a company would be able to select the technology or mix of technologies that it uses to establish reserves. Two commenters supported the proposal because they believed that disclosure of the technologies used is reasonable if the definition of "reliable technology" is principles-based. [122] However, many other commenters were concerned that the proposed requirement to disclose the technologies used to establish levels of certainty for reserves estimates would lead to very complex, technical disclosures that would have little meaning to investors. [123] Others were concerned that disclosure of the technology, or the mix of technologies, might cause competitive harm. [124]

As an alternative, some commenters recommended that the rule require a more general overview of the technologies used. [125] We are clarifying that the required disclosure would be limited to a concise summary of the technology or technologies used to create the estimate. [126] A company would not be required to disclose proprietary technologies, or a proprietary mix of technologies, at a level of specificity that would cause competitive harm. Rather, the disclosure may be more general. For example, a company may disclose that it used a combination of seismic data and interpretation, wireline formation tests, geophysical logs, and core data to calculate the reserves estimate. As noted, however, the Commission's staff, as part of the review and comment process, may continue to request companies to provide supplemental data, consistent with current practice, [127] which, under the new rules, may include information sufficient to support a company's conclusion that a technology or mix of technologies used to establish reserves meets the definition of "reliable technology."

***17** Two commenters supported the proposal to limit the disclosures to technologies used to establish reserves in a company's first filing with the Commission and material additions to reserves. [128] We are adopting this limitation as proposed. [129] If the company has not previously disclosed reserves estimates in a filing with the Commission or is disclosing material additions to its reserves estimates, the company must disclose the technologies used to establish the appropriate level of certainty for reserves estimates from material properties included in the total reserves disclosed and the particular properties do not need to be identified. We believe that requiring such disclosure when reserves, or material additions to reserves, are reported for the first time will discourage the use of questionable technologies to establish reserves. However, we do not believe it is necessary to require a company to disclose the technology or technologies relied upon to establish reserves previously disclosed under our rules because the permitted technologies have been limited to those permitted by our existing rule. In addition, we believe that ongoing disclosure of the technologies used to establish all of a company's reserves would become unnecessarily cumbersome.

H. Unproved Reserves—"Probable Reserves" and "Possible Reserves"

As discussed more fully in Section IV.B.3 of this release addressing the disclosure requirements of new Subpart 1200, we are adopting the proposal to permit disclosure of probable and possible reserves. Therefore, we are adopting the proposed definitions of the terms "probable reserves" and "possible reserves" as proposed.

When producing an estimate of the amount of oil and gas that is recoverable from a particular reservoir, a company can make three types of estimates:

• An estimate that is reasonably certain;

• An estimate that is as likely as not to be achieved; and

• An estimate that might be achieved, but only under more favorable circumstances than are likely.

These three types of estimates are known in the industry as (1) proved, (2) proved plus probable, and (3) proved plus probable plus possible reserves estimates.

1. Probable reserves

We are adopting the definition of the term "probable reserves" as proposed. It states that "probable reserves" are those additional reserves that are less certain to be recovered than proved reserves but which, in sum with proved reserves, are as likely as not to be recovered. [130] This definition provides guidance for the use of both deterministic and probabilistic methods. The definition clarifies that, when deterministic methods are used, it is as likely as not that actual remaining quantities recovered will equal or exceed the sum of estimated proved plus probable reserves. Similarly, when probabilistic methods are used, there must be at least a 50% probability that the actual quantities recovered will equal or exceed the proved plus probable reserves estimates. This definition was derived from the PRMS definition of the term "probable reserves." Several commenters agreed with the proposed definition of this term, noting that it is roughly consistent with PRMS. [131]

2. Possible reserves

***18** We also are adopting the definition of the term "possible reserves" as proposed. The new definition states that possible reserves include those additional reserves that are less certain to be recovered than probable reserves. [132] It clarifies that, when deterministic methods are used, the total quantities ultimately recovered from a project have a low probability to exceed the sum of proved, probable, and possible reserves. When probabilistic methods are used, there must be at least a 10% probability that the actual quantities recovered will equal or exceed the sum of proved, probable, and possible estimates. Several commenters noted that our proposed definition of the term "possible reserves" was consistent with PRMS, which also uses a 10% threshold. [133] One commenter recommended that the threshold for "possible reserves" should be a 25% likelihood of recovery because that percentage would be more meaningful than 10%. [134] We believe that a definition consistent with the PRMS will provide the most certainty and clarity for companies and investors.

I. Reserves

We proposed to add a definition of the term "reserves" to our rules. The proposed definition would have described the criteria that an accumulation of oil, gas, or related substances must satisfy to be considered reserves (of any classification), including non-technical criteria such as legal rights. Specifically, we proposed to define reserves as the estimated remaining quantities of oil and gas and related substances anticipated to be recoverable, as of a given date, by application of development projects to known accumulations based on:

• Analysis of geoscience and engineering data;

• The use of reliable technology;

• The legal right to produce;

• Installed means of delivering the oil, gas, or related substances to markets, or the permits, financing, and the appropriate level of certainty (reasonable certainty, as likely as not, or possible but unlikely) to do so; and

• Economic producibility at current prices and costs.

The proposed definition also would have clarified that reserves are classified as proved, probable, and possible according to the degree of uncertainty associated with the estimates. We are not adopting the definition as proposed. Four commenters recommended clarification that the term "legal right to produce" extends beyond the initial term of an oil and gas concession if there is a reasonable expectation that the concession will be renewed, consistent with the PRMS and current staff position. [135] We are adopting a definition of the term "reserves" that more closely parallels the PRMS definition of that term.

Our final rules define the term "reserves" as the estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. [136] In addition, there must exist, or there must be a reasonable expectation that there will exist, the legal right to produce or a revenue interest in the production of oil and gas, installed means of delivering oil and gas or related substances to market, and all permits and financing required to implement the project.

***19** A note to the definition clarifies that reserves should not be assigned to adjacent reservoirs isolated by major, potentially sealing, faults until those reservoirs are penetrated and evaluated as economically producible and that reserves should not be assigned to areas that are clearly separated from a known accumulation by a non-productive reservoir (i.e., absence of reservoir, structurally low reservoir, or negative test results). Such areas may contain prospective resources (i.e., potentially recoverable resources from undiscovered accumulations). [137]

One notable difference between our final definition of "reserves" and the PRMS definition is that our definition is based on "economic producibility" rather than "commerciality." One commenter believed that reserves must be "commercial," as stated in the PRMS definition. [138] However, commerciality introduces a subjective aspect to the price used to establish existing economic conditions by factoring in the rate of return required by a particular company before it will commit resources to the project. This rate of return will vary among companies, reducing the comparability among disclosures. Therefore, the adopted definition of the term "reserves" relies on economic producibility, as proposed.

J. Other Supporting Terms and Definitions

We also proposed to define several other terms primarily to support and clarify the definitions of the key terms. We are adopting most of those supporting definitions as discussed in further detail below.

1. Deterministic estimate

A company can derive two different types of reserves estimates depending on the method used to calculate the estimates. These two types of estimates are known as "deterministic estimates" and "probabilistic estimates." [139] In the Proposing Release, we proposed to define the term "deterministic estimate" as an estimate based on a single value for each parameter

(from the geoscience, engineering, or economic data) in the reserves calculation that is used in the reserves estimation procedure. We are adopting that definition as proposed.

2. Probabilistic estimate

We are adopting a new definition of the term "probabilistic estimate" substantially as proposed. The new rule defines the term "probabilistic estimate" as an estimate that is obtained when the full range of values that could reasonably occur from each unknown parameter (from the geoscience and engineering data) is used to generate a full range of possible outcomes and their associated probabilities of occurrence. [140] In response to a comment received, however, we revised the definition so that it does not include the application of a range of values with respect to economic conditions because those conditions, such as prices and costs, are based on historical data, and therefore are an established value, rather than a range of estimated values. [141]

3. Analogous reservoir

We proposed a definition of the term "analogous formation in the immediate area." As noted above, we received comment indicating that the use of appropriate analogs should not be limited to the immediate area in which the reserves are being estimated. [142] Therefore, we have changed the defined term to "analogous reservoir." [143] In addition, based on commenters' remarks, we are defining the term "analogous reservoir" in a manner that is more consistent with the PRMS, which addresses more specifically the types of reservoirs that may be used as analogues. The new definition of the term "analogous reservoir" states that analogous reservoirs, as used in resources assessments, have similar rock and fluid properties, reservoir conditions (depth, temperature, and pressure) and drive mechanisms, but are typically at a more advanced stage of development than the reservoir of interest and thus may provide concepts to assist in the interpretation of more limited data and estimation of recovery. [144] When used to support proved reserves, an "analogous reservoir" refers to a reservoir that shares the following characteristics with the reservoir of interest:

***20** • Same geological formation (but not necessarily in pressure communication with the reservoir of interest);

• Same environment of deposition;

• Similar geological structure; and

• Same drive mechanism.

As proposed, the new definition includes an instruction that clarifies that reservoir properties must, in the aggregate, be no more favorable in the analog than in the reservoir of interest. The new definition also clarifies that, although an analogous reservoir must be in the same geological formation as the reservoir of interest, it need not be in pressure communication with the reservoir of interest.

4. Definitions of other terms

We received no comment with regard to several of the proposed supporting definitions. We are adopting those definitions substantially as proposed without material changes. They include the following terms:

• "Condensate"; [145]

• "Development project"; [146]

• "Economically producible"; [147]

• "Estimated ultimate recovery," [148]

• "Exploratory well"; [149]

• "Extension well"; [150] and

• "Resources." [151]

Most of these supporting terms and their definitions are based on similar terms in the PRMS. The definition of "resources" is based on the Canadian Oil and Gas Evaluation Handbook (COGEH).

In the Proposing Release, we solicited comment on whether we should adopt any other supporting definitions. One commenter submitted an appendix to its letter containing numerous other terms that it thought we should adopt. [152] We have decided not to adopt those additional definitions because we feel that they are unnecessary at this time. However, we have decided to adopt a definition for the term "bitumen." We believe that providing a definition for this term will lead to more consistency among disclosures because there currently are several competing definitions of that term used in the industry.

We are defining the term "bitumen" as "petroleum in a solid or semi-solid state in natural deposits. In its natural state, it usually contains sulfur, metals, and other non-hydrocarbons. Bitumen has a viscosity greater than 10,000 centipoise measured at original temperature in the deposit and atmospheric pressure, on a gas free basis." [153] This definition is similar to the PRMS definition of "natural bitumen."

5. Proposed terms and definitions not adopted

We proposed definitions for the terms "continuous accumulations" and "conventional accumulations" to assist companies in disclosing segregated reserves based on these two types of accumulations. As noted elsewhere in this release, the final rules do not require disclosure based on the type of accumulation in which the reserves are found. [154] Therefore, there is no need to define these terms and we are not adopting the proposed definitions.

Similarly, we proposed a definition for the term "sedimentary basin" because it would have been part of our definition of the term "by geographic area." As noted elsewhere in this release, we have substantially revised the definition of the term "by geographic area" [155] and the term "sedimentary basin" is no longer needed, so we are not adopting this proposed term and definition.

***21** As noted above, one commenter recommended that we adopt a large glossary of terms and definitions that correspond with the PRMS definitions. [156] Rather than defining an extensive glossary of terms in our rules and attempting to constantly update those definitions, we advise companies to look to definitions that are commonly accepted within the oil and gas industry to the extent such definitions are not in, or inconsistent with, our rules.

K. Alphabetization of the Definitions Section of Rule 4-10

We are alphabetizing the definitional terms in Rule 4-10(a) because we are adding a significant number of defined terms to this section.

III. Revisions to Full Cost Accounting and Staff Accounting Bulletin

As we noted in Section II.B.2 of this release, commenters unanimously opposed our proposal to use different prices for disclosure and accounting purposes. We agree with those commenters and are revising our proposal to use a 12-month average price for accounting purposes. These revisions primarily will appear under the full cost accounting method described in Rule 4-10(c) [157] of Regulation S-X. The full cost accounting method permits certain oil and gas extraction costs to accumulate on a company's balance sheet subject to a limitation test or a "ceiling" as described in Rule 4-10(c)(3)(4). Like reserve disclosures, these capitalized costs and the related limitation test are not fair value based measurements. Rather the capitalized costs represent the accumulated historical acquisition, exploration and development costs (net of any previously recorded depletion, amortization or ceiling test write downs) incurred for oil and gas producing activities, limited to a standardized mathematical calculation (the full cost ceiling) adopted over 25 years ago. Costs that do not exceed the limitation are deferred and amortized over time. The limitation test calculation on capitalized costs is not designed or intended to represent a fair valuation of the related oil and gas assets. [158]

Similar to the single-day, year-end pricing used under the successful efforts method, [159] the application of the full cost method of accounting in Rule 4-10(c) has used "current prices," interpreted as single-day, year-end prices, as the basis for calculating the limitation on costs that may be capitalized under the full cost method. In order to further the objective of providing comparable oil and gas reserve quantities, our final rule clarifies that the term "current prices" as used in Rule 4-10(c) is consistent with the 12-month average price as calculated in Rule 4-10(a)(22)(v). [160]

However, since these calculations are not designed to result in a calculation of fair value and since the change to the full cost accounting method would effectively eliminate the anomalies caused by the single-day, year-end price currently used in the limitation test, the SEC staff will eliminate portions of Staff Accounting Bulletin (SAB) Topic 12:D.3.c that permit consideration of the impact of price increases subsequent to the period end on the ceiling limitation test.

***22** The combination of adopting a 12-month average pricing mechanism and eliminating portions of SAB Topic 12:D.3.c could have the effect of requiring a company using the full cost accounting method to record a ceiling test write-down in income during periods of rising oil and gas prices. In that situation, it is possible that using a 12-month average price in the ceiling test calculation might result in a write-down that would not otherwise have been required had the full cost company been permitted to use the single-day, year-end price. Conversely, it is also possible that in periods of declining oil and gas prices, the application of this rule could result in the deferral of ceiling test write-downs. In that situation, it is possible that using a 12-month average price in the ceiling limitation test calculation might not result in a write-down in situations where a write down would have otherwise been required had the full cost company been required to use a single-day, year-end price in its ceiling limitation test calculation.

Because the application of the ceiling limitation test is not a fair-value-based calculation but rather a limit on the amount of certain oil and gas related exploration costs that can be capitalized, portions of which would have resulted in write-downs in prior periods under other methods of accounting, we believe the benefits of using a single pricing mechanism justify the potential changes to the timing of those ceiling test write-downs or amortizations amounts. However, as discussed in Section V of this release, we believe that the company should discuss such situations, if material, particularly when pricing trends indicate the possibility of future write-downs, in Management's Discussion and Analysis and, where appropriate, the notes to the financial statements.

IV. Update and Codification of the Oil and Gas Disclosure Requirements in Regulation S-K

The Proposing Release proposed to update and codify Securities Act and Exchange Act Industry Guide 2: Disclosure of Oil and Gas Operations (Industry Guide 2). [161] Industry Guide 2 currently sets forth most of the disclosures that an oil and gas company provides regarding its reserves, production, property, and operations. Regulation S-K references

Industry Guide 2 in Instruction 8 to Item 102 (Description of Property), Item 801 (Securities Act Industry Guides), and Item 802 (Exchange Act Industry Guides). However, Industry Guide 2 itself does not appear in Regulation S-K or in the Code of Federal Regulations. The rules that we adopt today codify the contents of Industry Guide 2 in a new Subpart 1200 of Regulation S-K.

A. Revisions to Items 102, 801, and 802 of Regulation S-K

The instructions to Item 102 of Regulation S-K, as well as Items 801 and 802 of Regulation S-K, currently reference the industry guides. Because we are codifying the Industry Guide 2 disclosures in a new Subpart 1200 of Regulation S-K, we are revising the instructions to Item 102 to reflect this change. [162] We also are eliminating the references in Items 801 and 802 to Industry Guide 2 because that industry guide will cease to exist upon effectiveness of the amendments we adopt today. [163]

***23** In addition, Instruction 5 to Item 102 of Regulation S-K currently prohibits the disclosure of reserves other than proved oil and gas reserves. Because we are adopting rules to permit disclosure of probable and possible oil and gas reserves, we are revising Instruction 5 to limit its applicability to extractive enterprises other than oil and gas producing activities, such as mining activities. [164] Similarly, Instruction 3 of Item 102, regarding production, reserves, locations, development and the nature of the company's interests, will no longer apply to oil and gas producing activities, so we also are limiting that instruction to mining activities. [165]

Finally, we are eliminating Instruction 4 to Item 102 regarding the ability of the Commission's staff to request supplemental information, including reserves reports. This instruction is duplicative of Securities Act Rule 418 [166] and Exchange Act 12b-4, [167] regarding the staff's general ability to request supplemental information.

B. Proposed New Subpart 1200 to Regulation S-K Codifying Industry Guide 2 Regarding Disclosures by Companies Engaged in Oil and Gas Producing Activities

1. Overview

We are adding a new Subpart 1200 to Regulation S-K that codifies the disclosure requirements related to companies engaged in oil and gas producing activities. This new subpart largely includes the existing requirements of Industry Guide 2. However, we have revised these requirements to update them, provide better clarity with respect to the level of detail required in oil and gas disclosures, including the geographic areas by which disclosures need to be made, and provide formats for tabular presentation of these disclosures. In addition, Subpart 1200 contains the following new disclosure requirements, many of which have been requested by industry participants:

• Disclosure of reserves from non-traditional sources (e.g., bitumen, shale, coal) as oil and gas reserves;

• Optional disclosure of probable and possible reserves;

• Optional disclosure of oil and gas reserves' sensitivity to price;

• Disclosure of the development of proved undeveloped reserves;

• Disclosure of technologies used to establish additions to reserves estimates;

• Disclosure of a company's internal controls over reserves estimation and the qualifications of the business entity or individual preparing or auditing the reserves estimates; and

• Disclosure based on a new definition of the term "by geographic area."

We discuss each of these proposed new Items below.

2. Item 1201 (General instructions to oil and gas industry-specific disclosures)

We are adding new Item 1201 to Regulation S-K. This item sets forth the general instructions to Subpart 1200. The new item contains three paragraphs that perform the following tasks:
• Instruct companies for which oil and gas producing activities are material to provide the disclosures specified in Subpart 1200; [168]

***24** • Clarify that, although a company must present specified Subpart 1200 information in tabular form, the company may modify the format of the table for ease of presentation, to add additional information or to combine two or more required tables;

• State that the definitions in Rule 4-10(a) of Regulation S-X apply to Subpart 1200; and

• Define the term "by geographic area."

a. Geographic area

We received significant comments regarding the proposed definition of the term "by geographic area." We proposed to require disclosure by continent, country containing 15% of more of the company's reserves, and sedimentary basin or field containing 10% or more of the company's reserves. Several commenters were concerned that the proposed definition would add too much detail to the disclosures, particularly at the basin or field level. [169] They were concerned that this amount of detail would make disclosures too complex and incoherent. [170] They were particularly concerned with the extension of this standard to disclosures other than reserves, such as production, wells, and acreage. [171] Commenters also believed that the disclosures, in particular by field, could cause competitive harm in future property sales transactions, unitization agreements, and other asset transfers. [172]

Some commenters also believed that some of these disclosures may be prohibited by foreign governments. [173] One commenter noted that separate determination of field or basin reserves within a larger production sharing agreement may not be possible due to concession-wide cost sharing terms. [174] Eight commenters recommended that the determination of appropriate geographic disclosure should remain with management, consistent with Statement of Financial Accounting Standard No. 69 (SFAS 69). [175] However, two commenters indicated that a country-by-country breakdown would be adequate. [176]

Four commenters supported the proposed percentage thresholds for geographic disclosure, stating that they would increase understanding of the total energy supply, leading to better decisions by policy makers. [177] One commenter supported the 15% threshold for countries. [178]

As we noted in the Proposing Release, there have been differing interpretations among oil and gas companies as to the level of specificity required when a company is breaking out its reserves disclosures based on geographic area as required by Instruction 3 of Item 102 of Regulation S-K. [179] Some companies currently broadly organize their reserves only by hemisphere or continent. SFAS 69 requires reserves disclosure to be separately disclosed for the company's home country

and foreign geographic areas. It defines "foreign geographic areas" as "individual countries or groups of countries as appropriate for meaningful disclosure in the circumstances." Since SFAS 69 was issued, the operations of oil and gas companies have become much more diversified globally. For many large U.S. oil and gas producers, the majority of reserves are now overseas, with material amounts in individual countries and even individual fields or basins.

***25** We think that greater specificity than simply disclosing reserves within "groups of countries" would benefit investors and, in certain cases, may be necessary to meet the requirements of Item 102 of Regulation S-K. Some countries in which many of these companies operate and may have significant reserves are subject to unique risks, such as political instability. However, we recognize that disclosure that is too detailed may detract from the overall disclosure. Thus, we have revised the definition of the term "by geographic area" to mean, as appropriate for meaningful disclosure under a company's particular circumstances:
(1) By individual country;

(2) By groups of countries within a continent; or

(3) By continent. [180]

This definition is substantially the same as the definition currently provided in SFAS 69. However, as proposed, we are adopting specific percentage thresholds to the geographic breakdowns of reserves estimates and production. With respect to production, the final rules require disclosure of production in each country or field containing 15% or more of the company's proved reserves unless prohibited by the country in which the reserves are located. We are raising the proposed 10% threshold for field disclosure of production to 15% to make the threshold consistent. However, rather than requiring disclosure based on a percentage of the amount of the company's reserves of an individual product, as proposed, the final rules require disclosure based on a percentage of a company's total global oil and gas proved reserves, based on barrels of oil equivalent. [181]

With respect to reserves estimates, the final rules require disclosure of reserves in countries containing more than 15% of the company's proved reserves. As with the production disclosure, this 15% threshold would be based on the company's total global oil and gas proved reserves, rather than on individual products, as proposed. [182] A registrant need not provide disclosure of the reserves in a country containing 15% or more of the registrant's proved reserves if that country's government prohibits disclosure of reserves in that country.

We are not adopting the requirement that we proposed to disclose reserves by sedimentary basin or field. We share commenters' concerns that there is potential for competitive harm from such disclosure in future property sales transactions, unitization agreements, and other asset transfers. Moreover, we recognize that there may be situations in which a particular field may encompass a significant portion of a company's reserves in a foreign country. To avoid compelling a company to provide, in effect, field disclosure, the rule does not require disclosure of reserves in a country containing 15% of the company's reserves if that country prohibits disclosure of reserves in a particular field and disclosure of reserves in that country would have the effect of disclosing reserves in particular fields. [183] For example, if a company has 25% of its reserves in Country A and Country A's government prohibits disclosure of reserves by field within Country A, if almost all of that company's reserves in Country A are located in a single field, the company would not be required to specify the amount of its reserves located in Country A.

b. Tabular disclosure

***26** We proposed to require much of the reserves disclosures and other disclosures in Industry Guide 2 to be presented in tabular format. Two commenters encouraged using a standardized table for reserves disclosure. [184] Another believed

that companies should be able to reorganize, supplement, or combine tables for better presentation of the company's strategy. [185] However, two commenters believed that the rules should not propose a specified tabular format in general. [186] These commenters believed that companies should have the flexibility to present data in a format that is most relevant and meaningful to investors, whether it is tabular or narrative. [187] We continue to believe that in certain circumstances, the required disclosures lend themselves to a tabular disclosure format. We believe that standardizing such tables will improve the readability and comparability of disclosures among companies. However, in response to comments received, we have made several revisions to the individual disclosure items, including whether the disclosure item must be presented in tabular format. We discuss each below.

3. Item 1202 (Disclosure of reserves)

Existing Instruction 3 to Item 102 of Regulation S-K requires disclosure of an extractive enterprise's proved reserves. With respect to oil and gas producing companies, we are replacing this Instruction by adding a new Item 1202 to Regulation S-K that contains a similar disclosure requirement regarding a company's proved reserves. [188] However, new Item 1202 expands on the requirements of Item 102 by specifically permitting the disclosure of probable and possible reserves and permitting the disclosure of reserves from non-traditional sources. In addition, because we are no longer distinguishing between types of accumulations, the item contains only one table with separate columns for different final products, specifically, oil, gas, synthetic oil, synthetic gas, and other natural resources sold by the company.

a. Oil and gas reserves tables

New Item 1202 requires disclosure, in the aggregate and by geographic area, of reserves estimates using prices and costs under existing economic conditions, for each product type, in the following categories:

• Proved developed reserves;

• Proved undeveloped reserves;

• Total proved reserves;

• Probable developed reserves (optional);

• Probable undeveloped reserves (optional);

• Possible developed reserves (optional); and

• Possible undeveloped reserves (optional).

A form of this table is set forth below:

Summary of Oil and Gas Reserves as of Fiscal-Year End Based on Average Fiscal-Year Prices

	Reserves				
	Oil	Natural Gas	Synthetic Oil	Synthetic Gas	Product A
Reserves category	(mbbls)	(mmcf)	(mbbls)	(mmcf)	(measure)

PROVED
Developed
Continent A
Continent B
Country A
Country B
Other Countries in Continent B
Undeveloped
Continent A
Continent B
Country A
Country B
Other Countries in Continent B
TOTAL PROVED
PROBABLE
Developed
Undeveloped
POSSIBLE
Developed
Undeveloped

i. Disclosure by final product sold

***27** The table requires disclosure by final product sold by the company, specifically, oil, gas, synthetic oil, synthetic gas, or other natural resource. Thus, if the company processes a natural resource that it has extracted, such as bitumen, into synthetic oil or gas prior to selling the product, it may include such reserves under the synthetic oil or gas columns. As noted below, we have revised the proposal that would have required disclosure by type of accumulation. In addition, in response to commenters, we have revised the definition of "oil and gas producing activities" so that a company can

use the price of that synthetic oil or gas to determine the economic producibility of the reserves because the economics of the processing activity are relevant to the determination of whether to extract the underlying resource. [189]

However, if a company extracts a resource other than oil or gas, such as bitumen, and sells the product without processing it into synthetic oil or gas, it must disclose reserves of that other natural resource. Although that company's extractive activities would be considered an oil and gas producing activity under the definition of that term, such a company would not benefit from the economics of processing of that resource because the price that determines whether such a company extracts the resource is the price of the unprocessed resource and therefore the company may not establish reserves estimates based on the price of the upgraded product. Similarly, if the company does not itself extract the natural resource, but purchases the natural resource for processing or is paid to process the natural resource, it may not claim reserves either of the resource or of the processed product.

ii. Aggregation

As proposed, the reserves to be reported in these tables would be aggregations (to the company total level) of reserves determined for individual wells, reservoirs, properties, fields, or projects. Regardless of whether the reserves were determined using deterministic or probabilistic methods, the reported reserves should be simple arithmetic sums of all estimates at the well, reservoir, property, field, or project level within each reserves category. Eight commenters agreed that aggregation should not be permitted beyond the field, property or project level, consistent with PRMS. [190]

iii. Optional disclosure of probable and possible reserves

A company may, but is not required to, disclose probable or possible reserves in these tables. If a company discloses probable or possible reserves, it must provide the same level of geographic detail as it must with respect to proved reserves and must state whether the reserves are developed or undeveloped. In addition, Item 1202 requires the company to disclose the relative uncertainty associated with these classifications of reserves estimations. By permitting disclosure of all three of these classifications of reserves, our objective is to enable companies to provide investors with more insight into the potential reserves base that managements of companies may use as their basis for decisions to invest in resource development.

***28** Most commenters addressing this issue supported permitting the disclosure of probable and possible reserves in filed documents. [191] They believed that such disclosure would provide a more complete picture of a company's full portfolio of opportunities. [192] One commenter noted that this information often is already available on company websites and in press releases. [193] However, several commenters supporting the proposal cautioned that there could be significant variability among disclosures. [194]

Other commenters expressed concern about disclosure of unproved reserves, but conceded that voluntary disclosure would be acceptable. [195] These commenters were concerned that such disclosure may confuse investors and expose companies to increased litigation because of the inherent uncertainty associated with probable and possible reserves. [196] They noted that various technologies may be used to support these estimates. [197]

Several commenters opposed permitting disclosure of probable and possible reserves in Commission filings for similar reasons. [198] Again, they were concerned that the inherent uncertainty associated with such reserves estimates may lead to investor confusion and misunderstanding. [199] They believed that the broad range of technologies and methods used by companies to support these estimates would lead to inconsistent disclosure among companies. [200]

We note that numerous oil and gas companies already disclose unproved reserves on their Web sites and in press releases. This practice does not appear to have created confusion in the market. However, we understand commenters' concerns that probable and possible reserves estimates are less certain than proved reserves estimates and so may increase litigation risk. By making these disclosures voluntary, a company could exercise its own discretion as to whether to provide the market with this disclosure.

Some commenters were concerned that voluntary disclosure by some companies may raise confusion as to why other companies do not disclose these classifications of reserves. [201] One commenter was concerned that voluntary disclosure may increase market pressure on all companies to disclose probable and possible reserves estimates. [202] Considering the fact that many companies already make these disclosures public, we do not believe that this is an adequate reason for prohibiting from filings disclosure that may be helpful to investors.

iv. Resources not considered reserves

Because we are permitting disclosure of probable and possible reserves, we are revising existing Instruction 5 to Item 102 of Regulation S-K to continue to prohibit disclosure of estimates of oil or gas resources other than reserves, and any estimated values of such resources, in any document publicly filed with the Commission, unless such information is required to be disclosed in the document by foreign or state law. [203] Five commenters recommended that the rules permit disclosure of all categories of resources, including those that do not qualify as reserves. [204] One commenter believed that the prohibition against disclosing all resources deprives public markets of significant information without meaningfully enhancing investor protection and ultimately may harm the efficiency and development of U.S. markets and U.S. companies raising capital. [205] That commenter also thought such a restriction could also encourage companies to form outside of the U.S. [206] Another commenter believed that the uncertainty of resource estimates is best communicated by reporting the full range of estimates. [207] In addition, another commenter believed that clear disclosure would allay concerns about investor misunderstanding of estimates of resources that do not qualify as reserves. [208] That commenter noted that excluding resources that are not reserves is inconsistent with international standards and the fact that these resources are disclosed in the U.S. on websites and in press releases. [209] We continue to be concerned that such resources are too speculative and may lead investors to incorrect conclusions. Therefore, we are adopting the proposal to prohibit disclosure of resources other than reserves.

***29** However, consistent with existing Instruction 5, a company may continue to disclose such estimates of non-reserves resources in a Commission filing related to an acquisition, merger, or consolidation if the company previously provided those estimates to a person that is offering to acquire, merge, or consolidate with the company or otherwise to acquire the company's securities. [210] Several commenters recommended that the Commission maintain this exception so that the company's shareholders would not be at an informational disadvantage compared to the counterparty when assessing a merger. [211] We agree with these commenters and have retained the exception in the revised Instruction 5 adopted today.

b. Optional reserves sensitivity analysis table

The rules that we are adopting require a company to determine whether its oil or gas resources are economically producible based on a 12-month average price. We also proposed, and are adopting, an optional reserves sensitivity table. This table would permit companies to disclose additional information to investors, such as the sensitivity that oil and gas reserves have to price fluctuations. If a company chooses to provide such disclosure, it may choose the different scenario or scenarios, if any, that it wishes to disclose in the table, provided that it also discloses the price and cost schedules and assumptions on which the alternate reserves estimates are based.

Twelve commenters supported permitting such sensitivity analyses. [212] Some believed that this would provide investors with a better view of management's analysis of future prices. [213] One recommended providing a set price change of 10% for the sensitivity analysis. [214] Two other commenters believed that different circumstances may require different types of sensitivity analyses, both with respect to the range of prices used and the format of the presentation. [215] We agree that the appropriate range for a sensitivity analysis may vary depending on the situation, and therefore, as proposed, we are not specifying a range of prices to be used.

However, five commenters specifically opposed requiring such an analysis. [216] They believed that such a requirement would cause confusion and harm comparability. [217] Three commenters opposed such a sensitivity analysis because using different prices could mislead investors. [218] We are adopting this table, as proposed, as a voluntary disclosure rather than a requirement. However, as proposed, the table would require disclosure of the assumptions behind varying estimates. We believe this disclosure will mitigate any investor confusion.

In addition, we remind companies that Item 303 of Regulation S-K (Management's Discussion and Analysis of Financial Condition and Results of Operations) [219] requires discussion of known trends and uncertainties, which may include changes to prices and costs. A form of this optional reserves sensitivity analysis table is set forth below.

Sensitivity of Reserves to Prices By Principal Product Type and Price Scenario

Price Case	Proved Reserves			Probable Reserves			Possible Reserves		
	Oil	Gas	Product A	Oil	Gas	Product A	Oil	Gas	Product A
	Mbbls	mmcf	measure	mbbls	mmcf	measure	mbbls	mmcf	measure
Scenario 1									
Scenario 2									

c. Separate disclosure of conventional and continuous accumulations

***30** Under the proposal, new Item 1202 would have required companies to disclose reserves from conventional accumulations separately from reserves in continuous accumulations. Nine commenters recommended disclosure based on the final product. [220] These commenters opposed segregating disclosure based on the type of accumulation that is involved. [221] They believed that such disclosure would be too complex and detailed and of little use to investors. [222] In addition, seven commenters pointed out that separation may be impossible because some fields contain both conventional and continuous accumulations. [223] This would make allocation of costs arbitrary. [224] However, four commenters supported the definitions and separate disclosure by type of accumulation. [225] One commenter believed that such disclosure would allow investors to assess the impact of unconventional sources on reserves. [226]

Although we agree conceptually that the focus of reserves disclosure should be on the final product, we also recognize that the production of oil and gas from varying sources can have significantly different economics. Extraction of oil and gas from continuous accumulations can be much more labor and resource intensive than extraction of oil and gas from traditional wells. They often require greater ongoing efforts and expense after the initial extraction equipment is in place, making such operations more sensitive to price fluctuations.

We agree with the commenters that disclosure based on the end product sold would provide a more effective basis for distinguishing reserves that disclosure based on the type of accumulation in which the reserves are held. Therefore, we have revised the disclosure to be based on the end product that is sold by the company. [227] However, with respect to the end product, new Item 1202 makes a distinction between oil and gas, on the one hand, and synthetic oil and gas, on the other. Synthetic products require processing of the raw resource material, either while it is still in the ground ("in situ") or after it is extracted, before it can be used as refinery feedstock or as natural gas. Such processes currently include bitumen upgrading as well as coal liquefaction and gasification. However, resources from some continuous accumulations, such as coalbed methane, do not require such processing and therefore are not associated with the same level of ongoing costs once a well has been drilled because the in-ground resource is already oil or gas (in the case of coalbed methane, the in-ground resource is methane, trapped in a coalbed). Thus, coalbed methane would not be considered a synthetic product.

d. Preparation of reserves estimates or reserves audits

In the Proposing Release, we proposed to require a company to disclose whether or not the technical person [228] primarily responsible for preparing the reserves estimate possessed certain specified qualifications and was subject to a list of controls for maintaining objectivity. Most commenters addressing the issue opposed this proposed requirement. [229] However, many of these commenters appeared to believe that the disclosure requirement would pertain to every person involved with the estimation process. [230] If adopted, they noted that such disclosure would be voluminous, adding unnecessary complexity to disclosures. [231] Four commenters suggested that we clarify that the disclosure is limited to the chief technical person who oversees the company's overall reserves estimation process, [232] which was the intent of the proposal. Five commenters supported this disclosure because it helps users understand the objectivity and quality of reserves estimates. [233]

***31** It was our intent to limit the disclosure to the technical person primarily responsible for overseeing the reserves estimates. However, there may have been confusion with respect to this point based on a footnote which stated that we sought disclosure about the person who "is primarily responsible for the actual calculations and estimation or audit." By that term, we did not intend to include any person making "actual calculations." We recognize that, ultimately, the reserves estimates are overseen by top management, which may or may not have reserves estimation expertise. The focus of the final rule is the primary technical person responsible for overseeing the preparation of the reserves estimation process. We have revised the language in the rule to clarify this point. [234]

Two commenters noted that it was inconsistent to require such precise disclosure about reserves experts, but not other experts. [235] One of those commenters recommended that the rule require expert language, including clear disclosure of which portion of the reserves estimate the third party is expertising and filed consents. [236] The concept of an expert under the Securities Act is different from the disclosures that we seek regarding the qualifications and objectivity of persons responsible for the preparation or audit of oil and gas reserves. Under the Securities Act, disclosure must be made when the company represents that disclosure is based on the authority of an expert. Although the Securities Act concept of experts will continue to be relevant when the reserves disclosures are in, or incorporated into, a Securities Act filing and the company represents that disclosure is based on the authority of an expert, the new rules requiring disclosure about the reserves preparer or auditor in a company's Exchange Act reports are intended to help investors determine whether reserves estimates, which are highly technical, have been prepared by a qualified, objective person, regardless of whether that person is an employee of the company.

However, we agree with commenters that a prescribed list of qualifications and objectivity requirements may be too rigid for all situations. With respect to technical qualifications, several commenters noted that licensing requirements can vary greatly among jurisdictions. [237] Commenters also believed that disclosure of a person's objectivity was unnecessary

because management is required to install appropriate internal controls to ensure the reliability of reserves estimates. [238] In fact, some commenters recommended that we limit the disclosure to a description of a company's internal controls, including the company's technical assessment routine, management and board review and approval processes, the internal audit process, the extent to which the company uses external parties to estimate or audit reserves estimates, and a summary description of the qualifications of the company's typical reserves estimators. [239] We are following these commenters' recommendations and adopting a rule that requires a company to provide a general discussion of the internal controls that it uses to assure objectivity in the reserves estimation process and disclosure of the qualifications of the technical person primarily responsible for preparing the reserves estimates or conducting the reserves audit if the company discloses that such a reserves audit has been performed, regardless of whether the technical person is an employee or an outside third party. [240]

***32** We did not propose, but sought comment on, whether the rules should require a company to retain an independent third party to prepare, or conduct a reserves audit of, the company's reserves estimates. Most commenters urged the Commission not to adopt such a requirement. [241] They believed that a company's internal staff, particularly at larger companies, is generally in a better position to prepare those estimates [242] and that there is a potential lack of qualified third party engineers and other professionals available to conduct the increased work that would result from such a requirement. [243] We agree with these commenters and are not adopting a requirement that an independent third party prepare, or conduct a reserves audit of, the company's reserves estimates.

e. Reserve audits and the contents of third-party reports

In the Proposing Release, we proposed that, if a company represents that its estimates of reserves are prepared or audited by a third party, the company must file a report of the third party as an exhibit to the relevant registration statement or report. Two commenters believed that a company description of the third party's report would be sufficient because the reports can contain sensitive information. [244] However, another commenter was concerned that not filing the report may lead to mischaracterizations by the company. [245] This commenter supported the filing of a report by the third party reserves estimator or auditor, but believed that the Commission should determine the contents of such a report. [246] Two commenters supported the filing of the report "letter" as an exhibit, but not the full reserves report because it may contain proprietary information. [247]

As proposed, we are adopting a new rule to require that if the company represents that a third party prepared the reserves estimate or conducted a reserves audit of the reserves estimates, the company must file a report of the third party as an exhibit to the relevant registration statement or report. [248] These reports need not be the full "reserves report," which is often very detailed and voluminous. Rather, these reports could be shorter form reports that summarize the scope of work performed by, and conclusions of, the third party. These reports must include the following disclosure, based on the Society of Petroleum Evaluation Engineers's audit report guidelines:

• The purpose for which the report is being prepared and for whom it is prepared;

• The effective date of the report and the date on which the report was completed;

• The proportion of the company's total reserves covered by the report and the geographic area in which the covered reserves are located;

• The assumptions, data, methods, and procedures used to conduct the reserves audit, including the percentage of company's total reserves reviewed in connection with the preparation of the report, and a statement that such assumptions, data, methods, and procedures are appropriate for the purpose served by the report;

*33 • A discussion of primary economic assumptions;

• A discussion of the possible effects of regulation on the ability of the registrant to recover the estimated reserves;

• A discussion regarding the inherent risks and uncertainties of reserves estimates;

• A statement that the third party has used all methods and procedures as it considered necessary under the circumstances to prepare the report; and

• The signature of the third party.

In addition, if the report is related to a reserves audit, it must contain a brief summary of the third party's conclusions with respect to the reserves estimates. Finally, if the disclosures are made in, or incorporated into, a Securities Act registration statement, the company must file a consent of the third party as an exhibit to the filing.

In the Proposing Release, we proposed to define the term "reserves audit" as "the process of reviewing certain of the pertinent facts interpreted and assumptions made that have resulted in an estimate of reserves prepared by others and the rendering of an opinion about the appropriateness of the methodologies employed, the adequacy and quality of the data relied upon, the depth and thoroughness of the reserves estimation process, the classification of reserves appropriate to the relevant definitions used, and the reasonableness of the estimated reserves quantities. In order to disclose that a 'reserves audit' has been conducted, the report resulting from this review must represent an examination of at least 80% of the portion of the registrant's reserves covered by the reserves audit." We are substantively adopting the first sentence of this definition as proposed.

However, in response to comments received, we are not adopting the proposed second sentence of the definition of the term "reserves audit." Two commenters supported the proposed 80% threshold regarding the proportion of reserves that a reserves auditor must review in order for the company to characterize that auditor's work as a "reserves audit." [249] Another commenter believed that the 80% threshold was appropriate for preparing reserves estimates. [250] But three commenters believed that an audit should simply disclose the percentage that was audited. [251] One of these noted that it has its reserves audit performed on a rolling basis. [252] We believe that disclosure of the work done in the required third-party report makes a bright-line percentage test unnecessary. If a company conducts its reserves audit on a rolling basis, it is appropriate for its shareholders to be aware of that fact. Therefore, we are not adopting the proposed 80% threshold. We believe that disclosure of the scope of the review will enable investors to assess the significance to attribute to a reserves audit.

f. Process reviews

In the Proposing Release, we solicited comment regarding whether we should permit a company to disclose that it has hired a third party to perform a process review under the Society of Petroleum Engineers' (SPE's) reserves auditing standards. [253] Those standards define a process review as an investigation by a person who is qualified by experience and training equivalent to that of a reserves auditor to address the adequacy and effectiveness of an entity's internal processes and controls relative to reserves estimation. However, those standards also note that a process review should not include an opinion relative to the reasonableness of the reserves quantities and should be limited to the processes and control system reviewed. The SPE's standards state that, although such reviews may provide value to the entity, an external or internal process review is not of sufficient rigor to establish appropriate classifications and quantities of reserves and should not be represented to the public as being equivalent to a reserves audit.

***34** Five commenters believed that internal process reviews are helpful in promoting accuracy and effectiveness, so companies should be permitted to disclose them. [254] However, one commenter was concerned that, although a process review can be helpful for a company, disclosure may give investors a false sense of security. [255] Two commenters suggested that, if a company discloses that it performed a process review, it should clearly disclose what a process review is. [256]

We agree that a process review can be helpful to the company and ultimately to investors. However, we also agree that if a company discloses that it has hired a third party to perform a process review, it must clearly disclose the details surrounding that process review. As such, the new rules treat a process review similar to a reserves audit. If the company discloses that it has hired a third party to conduct a process review, it must file a report of the third party as an exhibit to the relevant registration statement or report and, if the disclosures are made in, or incorporated into, a Securities Act registration statement, the company must file a consent of the third party as an exhibit to the filing. [257]

4. Item 1203 (Proved undeveloped reserves)

We proposed requiring tabular disclosure of the aging of proved undeveloped reserves (PUDs). Proposed Item 1203 would have required an oil and gas company to prepare a table showing, for each of the last five fiscal years and by product type, proved reserves estimated using current prices and costs in the following categories:

• Proved undeveloped reserves converted to proved developed reserves during the year; and

• Net investment required to convert proved undeveloped reserves to proved developed reserves during the year. [258]

Numerous commenters were concerned that the proposed five-year table would be too complex for investors to understand. [259] They expressed concern that the proposed table may mislead investors by not clearly attributing costs to the year in which the corresponding PUDs are converted because much of the costs may have been spent in previous years. [260] In addition, commenters noted that maintenance of such data would be costly [261] and that companies currently do not always capture this type of information because management does not use it to run the business. [262]

Eight commenters suggested an alternative of disclosing (1) the quantity of undeveloped reserves if material, (2) the progress in converting PUDs, and (3) any material changes in the current year. [263] Three U.S. Senators recommended requiring disclosure of development plans in addition to the table. [264] They believed that requiring reporting of investments and planned investments in oil and gas development would provide investors with certainty about companies' intentions to develop the federal lands that they have at their disposal. [265] However, three commenters opposed disclosure of a company's plans to drill and expected capital expenditures because disclosing their business plan may cause competitive harm and might expose them to litigation if results differ from their plan. [266] Six commenters supported the proposed table. [267]

***35** We recognize the concern that the PUD table that we proposed may be confusing to investors because it would not attribute capital expenditures to the corresponding reserves as they are developed. As an alternative to the proposed table, we are adopting rules that require a company to disclose the following in narrative form:

• The total quantity of PUDs at year end;

• Any material changes in PUDs that occurred during the year, including PUDs converted into proved developed reserves;

• Investments and progress made during the year to convert PUDs to proved developed oil and gas reserves; and

• An explanation of the reasons why material concentrations of PUDs in individual fields or countries have remained undeveloped for five years or more after disclosure as PUDs. [268]

These disclosures would have been required under the proposal, but much of it would have been presented in tabular format. We believe that a narrative approach to these disclosures will provide companies with a better vehicle to explain the status of their PUDs and their track record for developing such reserves. Rather than requiring forward-looking information about a company's plans to develop reserves that may lead to exaggeration of a company's capability to actually convert such reserves, we believe that disclosure of a company's verifiable, established track record of converting such reserves, including its ability to obtain financing for such activities, would be a better indication of the likelihood of that company's success in developing reserves in the future. Specific required disclosure regarding a company's failure to develop material concentrations of PUDs for five or more years should address commenters' concerns that the company may have no intention to develop such reserves.

5. Item 1204 (Oil and gas production)

We proposed to codify the Industry Guide 2 disclosure regarding oil and gas production as Item 1204 of Regulation S-K, in tabular form and with greater detail. One commenter did not believe that separating production, sales price and production costs based on whether they were related oil wells or gas wells would be valuable to investors. [269] It believed that companies do not use this information to manage their business and do not maintain systems to capture this information on that basis, so tracking such data would require costly changes to their systems. [270] Two commenters also believed that it would not be possible to separate production cost by product because many units extract different products. [271] One commenter also recommended that production not be segregated by type of accumulation. [272]

We have decided not to adopt Item 1204 as proposed. Rather, we are codifying the existing Industry Guide 2 disclosure item with several revisions. Consistent with the Industry Guide 2 disclosure item, the Item 1204, as adopted, requires disclosure, for each of the prior three fiscal years, of production, by final product sold, of oil, gas, and other products. In addition, for the same time period, the company must disclose, by geographical area:

***36** • The average sales price (including transfers) per unit of oil, gas and other products produced; and

• The average production cost, not including ad valorem and severance taxes, per unit of production.

However, unlike the Industry Guide disclosure item, this disclosure must be made by geographical area and for each country and field containing 15% or more of the registrant's proved reserves, expressed on an oil-equivalent-barrels basis.

Similarly, we are codifying the instructions to the Industry Guide 2 item. One commenter recommended that we maintain some of the existing instructions from the Industry Guide. [273] The first instruction codified from the Industry Guide clarifies that net production should include only production that is owned by the registrant and produced to its interest, less royalties and production due others. However, in special situations (e.g., foreign production), net production before any royalties may be provided, if more appropriate. If “net before royalty” production figures are furnished, the change from the usage of “net production” should be noted.

The second instruction, which is also from the Industry Guide, states that production of natural gas should include only marketable production of natural gas on an “as sold” basis. Production will include dry, residue, and wet gas, depending

on whether liquids have been extracted before the registrant transfers title. Flared gas, injected gas, and gas consumed in operations should be omitted. Recovered gas-lift gas and reproduced gas should not be included until sold. Synthetic gas, when marketed as such, should be included in natural gas sales.

We are adding a third instruction that was not in the Industry Guide. This instruction states that, if any product, such as bitumen, is sold or custody is transferred prior to conversion to synthetic oil or gas, the product's production, transfer prices, and production costs should be disclosed separately from all other products. This instruction is necessary because the existing Industry Guide 2 disclosure requirement only required separate disclosure based on whether the end product was oil or gas. This instruction merely clarifies that disclosures under this item must be based on the end product, which may not be oil or gas because the amendments will permit the disclosure of reserves of other end products, such as bitumen.

The fourth instruction codified from the Industry Guide states that the transfer price of oil and gas (natural and synthetic) produced should be determined in accordance with SFAS 69. And the fifth instruction codified from the Industry Guide clarifies that the average production cost per unit of production should be computed using production costs disclosed pursuant to SFAS 69. Units of production should be expressed in common units of production with oil, gas, and other products converted to a common unit of measure on the basis used in computing amortization. This instruction also adds products from unconventional sources to the existing disclosure Item in Industry Guide 2.

6. Item 1205 (Drilling and other exploratory and development activities)

***37** We proposed to codify the Industry Guide 2 disclosure item regarding drilling activities as Item 1205 of Regulation S-K, in tabular form, with several revisions to that Industry Guide 2 disclosure item, including applying a new definition of the term "geographic area" and adding two categories of wells:

• Extension wells; and

• Suspended wells.

Three commenters believed that the disclosures required under this proposed Item would become too detailed. [274] One of these commenters also believed that the number of wells being drilled does not provide an accurate picture of a company's drilling activities because of the increased usage of horizontal wells. [275]

Some commenters also did not believe that creating new categories for extension wells and suspended wells would be meaningful. [276] They noted the burden of the added detail would exceed the value of the information to investors. [277] One pointed out that determining whether a well constitutes an extension well would be difficult because of multipurpose drilling. [278]

After considering the above comments, we have decided not to adopt all of the proposed revisions to the existing Industry Guide 2 disclosure. We recognize that, for some companies that use advanced drilling techniques, the proposed disclosure may not be a good indicator of the extent of their exploratory and development activities, although we believe that this disclosure is still important for many companies. Therefore, we have decided to codify the existing disclosures found in Industry Guide 2 related to drilling activities without revision and to not require tabular disclosure. [279] However, as proposed, we are adding a new provision to this Item that requires companies to discuss their exploratory and development activities regarding oil and gas resources that are extracted by mining techniques because we are now including such resources under the definition of "oil and gas producing activities."

7. Item 1206 (Present activities)

Item 1206 codifies existing Item 7 of Industry Guide 2, which calls for disclosure of present activities, including the number of wells in the process of being drilled (including wells temporarily suspended), waterfloods in process of being installed, pressure maintenance operations, and any other related activities of material importance. [280] We are adopting Item 1206 substantially as proposed.

8. Item 1207 (Delivery commitments)

Item 1207 codifies existing Item 8 of Industry Guide 2, which calls for disclosure of arrangements under which the company is required to deliver specified amounts of oil or gas and how the company intends to meet such commitments. [281] We are not adopting any substantive changes to the disclosure currently called for by Item 8 of Industry Guide 2. However, we are restructuring and rewording the disclosure item to make it easier to understand, including separating embedded lists into separate subparagraphs and making general plain English revisions. As proposed, these revisions are not intended to change the substance of the disclosures.

9. Item 1208 (Oil and gas properties, wells, operations, and acreage)

***38** We proposed to codify disclosure about oil and gas properties, wells, operations, and acreage as Item 1208 of Regulation S-K, in tabular form, as well as make several revisions to the existing disclosures, including applying a new definition of the term "geographic area" and adding language that better illustrates the types of properties and the types of disclosures for those properties, including the following:

• Identification and description generally of the company's material properties, plants, facilities, and installations;

• Identification of the geographic area in which they are located;

• Indication of whether they are located onshore or offshore; and

• Description of any statutory or other mandatory relinquishments, surrenders, back-ins, or changes in ownership.

Six commenters believed that it is not necessary to enhance this section from Industry Guide 2 because the requirements are already covered by Item 102 of Regulation S-K. [282] Commenters were particularly concerned with the segmentation of this disclosure by product, by type of accumulation, and by geographic location. [283] They believed that this level of detail would not be helpful to investors and would impose added costs on companies because they currently do not collect this detailed information. [284] Moreover, seven commenters thought that the well count disclosure is no longer meaningful because of technologies such as horizontal drilling. [285] They thought that, in light of these new technologies, well count disclosure could be misleading. [286]

As with the case of drilling activities, we agree that the proposed added detail could make the disclosures too cumbersome. In addition, such disclosure may be of less importance to many companies because of new drilling technology. Therefore, we are merely codifying the existing Industry Guide 2 disclosure, without revision. [287]

V. Guidance for Management's Discussion and Analysis for Companies Engaged in Oil and Gas Producing Activities

We proposed to add a new Item 1209, which would have specified topics that a company should address either as part of its Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) or in a separate section. [288] Four commenters were concerned that, although the proposed Item was intended to provide more guidance

regarding the disclosures required, it would effectively require companies to address all of the issues listed in the Item. [289] One recommended that, instead of a detailed list, the requirement should clarify that companies should address "material changes due to technology, prices, concession conditions, commercial terms, known trends, demands, commitments, uncertainties and any events that are reasonably likely to have a material effect on reserves estimates and financial condition." [290] Similarly, another commenter recommended that the Commission clarify that the Item is limited to material impacts. [291]

***39** We are not adopting the proposed Item as part of Regulation S-K because it is intended to be guidance, rather than a specific disclosure Item. We agree that, if companies were to discuss every issue provided in the list, the disclosure would be too long and detailed to be of much use to most investors. Important issues could be hidden amid unnecessary detail. However, we believe that added guidance would be beneficial to companies regarding the issues that the Commission's staff commented upon in its review of the MD&A section of filings made by oil and gas companies.

To begin, a fundamental premise of MD&A is that the information provided should be related to issues that are material to a company. Although we discuss a list of topics that a company might need to discuss, a company need only discuss a topic if it constitutes, involves, or indicates known trends, demands, commitments, uncertainties, and events that are reasonably likely to have a material effect on the company. These topics include:

• Changes in proved reserves and, if disclosed, probable and possible reserves, and the sources to which such changes are attributable, including changes made due to:

• Changes in prices;

• Technical revisions; and

• Changes in the status of any concessions held (such as terminations, renewals, or changes in provisions);

• Technologies used to establish the appropriate level of certainty for any material additions to, or increases in, reserves estimates, including any material additions or increases to reserves estimates that are the result of any of the final rules adopted in this release;

• Prices and costs, including the impact on depreciation, depletion and amortization as well as the full cost ceiling test;

• Performance of currently producing wells, including water production from such wells and the need to use enhanced recovery techniques to maintain production from such wells;

• Performance of any mining-type activities for the production of hydrocarbons;

• The company's recent ability to convert proved undeveloped reserves to proved developed reserves, and, if disclosed, probable reserves to proved reserves and possible reserves to probable or proved reserves;

• The minimum remaining terms of leases and concessions;

• Material changes to any line item in the tables described in Items 1202 through 1208 of Regulation S-K;

• Potential effects of different forms of rights to resources, such as production sharing contracts, on operations; and

• Geopolitical risks that apply to material concentrations of reserves.

The MD&A is typically presented in a self-contained section of the registration statement or report. However, the disclosure requirements that comprise new Subpart 1200 of Regulation S-K will cause a substantial amount of an oil and gas company's disclosure to appear in tabular format, providing an outline of much of a company's operations. Because the tables will present many of the types of changes that management often discusses in its MD&A, we believe it may be more helpful to investors to locate such discussion close to the tables themselves. Thus, to the extent that any discussion or analysis of known trends, demands, commitments, uncertainties, and events that are reasonably likely to have a material effect on the company is directly relevant to a particular disclosure required by Subpart 1200, the company may include that discussion or analysis with the relevant table, with appropriate cross-references, rather than including it in its general MD&A section.

VI. Conforming Changes to Form 20-F

***40** Form 20-F is the form on which foreign private issuers file their annual reports and Exchange Act registration statements. Currently, Form 20-F contains instructions that are similar to those in Item 102 of Regulation S-K. However, rather than referring to Industry Guide 2 for disclosures regarding oil and gas producing activities, Form 20-F contains its own "Appendix A to Item 4.D—Oil and Gas" (Appendix A) that provides guidance for oil and gas disclosures for foreign private issuers. [292] Appendix A is significantly shorter, and provides far less guidance regarding disclosures, than Subpart 1200 or Industry Guide 2. We proposed to revise Form 20-F to eliminate the reference to Appendix A, and rather refer to Subpart 1200, which would expand the disclosures required by foreign private issuers.

Six commenters supported harmonizing the Form 20-F disclosures with Regulation S-K. [293] One noted that the proposal would make disclosure more consistent and comparable among oil companies. [294] It believed the proposal would put all oil companies on a level playing field. [295]

However, one commenter recommended that the Commission exempt companies reporting under International Financial Reporting Standards (IFRS). [296] It also recommended that instead of applying the proposed Subpart 1200 to foreign private issuers, the Commission should revise Appendix A to Form 20-F itself, making appropriate limitations for foreign private issuers, such as eliminating the disclosure of wells and acreage. [297] Another commenter was concerned because the proposals may hinder, rather than facilitate, transition to the use of IFRS. [298]

We continue to believe that Subpart 1200 would be appropriate disclosure for all public companies engaged in oil and gas producing activities, including foreign private issuers. The added guidance in Subpart 1200 should promote more consistent and comparable disclosures among oil and gas companies. It is our understanding that many of the larger foreign private issuers already provide disclosure in their filings with the Commission comparable to the disclosure provided by domestic companies. Thus, we are revising Form 20-F to incorporate Subpart 1200 with respect to oil and gas disclosures and delete Appendix A to Item 4.D in that form. We recognize that this requirement may require a foreign private issuer to prepare two different reserves estimates if the rules in their home jurisdiction require a different pricing standard than the 12-month average that we adopt in this release. However, we believe the same conflict would have existed under our previous rule to the extent our pricing method differed from the home jurisdiction's method.

Appendix A currently allows a foreign private issuer to exclude required disclosures about reserves and agreements if its home country prohibits the disclosures. Two commenters suggested that the rule continue to provide an exception for disclosures about reserves and agreements that are prohibited by foreign laws. [299] However, another commenter believed that a company taking advantage of such an exception should be required to disclose the country, the citation of the relevant law or regulation, and the fact that the disclosed estimates do not include amounts from the named country. [300]

We are not revising this provision. Rather, because these considerations still apply to such foreign private issuers, we are moving that provision from Appendix A and adopting it as Instruction 2 to Item 4 of Form 20-F, as proposed. [301]

***41** One commenter recommended clarifying that the new disclosures would not apply to foreign private issuers under the Multi-Jurisdictional Disclosure System (MJDS) using Form 40-F that comply with NI 51-101 in Canada because those rules already are broadly consistent with PRMS. [302] We agree with this commenter and believe that such issuers need not provide disclosures beyond those required in Canada.

VII. Impact of Amendments on Accounting Literature

A. Consistency with FASB and IASB Rules

Numerous commenters recommended that the SEC generally coordinate its efforts with the IASB and FASB to create a cohesive whole and not adopt competing models. [303] We have begun, and will continue, to work with both of these organizations to ensure a smooth transition to the new reporting rules.

B. Change in Accounting Principle or Estimate

In the Proposing Release, we expressed our view that the change from using single-day year-end price to an average price should be treated as a change in accounting principle, or a change in the method of applying an accounting principle, that is inseparable from a change in accounting estimate. Therefore, this change would be considered a change in accounting estimate pursuant to Statement of Financial Accounting Standard No. 154 "Accounting Changes and Error Corrections" (SFAS 154) and would be accounted for prospectively.

Commenters believed that the change would be best described as:

• A change in accounting estimate; [304]

• A change in accounting principle that is inseparable from a change in accounting estimate; or [305]

• A change in accounting estimate effected by a change in accounting principle. [306]

We believe that any accounting change resulting from the changes in definitions and required pricing assumptions in Rule 4-10, should be treated as a change in accounting principle that is inseparable from a change in accounting estimate, which does not require retroactive revision. We note that pursuant to AU 420.13, such a change requires recognition in the independent auditor's report through the addition of an explanatory paragraph.

All commenters on the issue agreed that adoption of the rules should not require retroactive revision of past reserves estimates. [307] Some believed retroactive revision of reserves estimates would be very burdensome or impossible because such data was not maintained. [308] We agree with those commenters and believe that no retroactive revisions will be necessary.

Three commenters recommended that the FASB revise Statement of Financial Accounting Standard No. 19 (SFAS 19) to include unconventional resources currently accounted for as mining activities and also provide guidance that no retroactive revisions would be required in that scenario. [309] We will continue to work with the FASB on this issue.

C. Differing Capitalization Thresholds Between Mining Activities and Oil and Gas Producing Activities

***42** As noted elsewhere in this release, extraction of products such as bitumen now will be considered oil and gas producing activities, and not mining activities. Under current U.S. accounting guidance, costs associated with proven plus probable mining reserves may be capitalized for operations extracting products through mining methods, like bitumen. Under the new rules, bitumen extraction and operations that produce oil or gas through mining methods are included under oil and gas accounting rules, which only permit capitalization of costs associated with proved reserves. [310] Moreover, the mining guidelines do not provide specified percentages for establishing levels of certainty for proven or probable reserves for mining activities. It is possible that these differences could result in changing reserves estimates for these resources during the transition to the new rules.

One commenter believed that the industry would need guidance regarding how to transition operations that are disclosed and accounted for as mining operations to oil and gas disclosure and accounting. [311] It noted that this issue would be relevant not only coincident with the new rules, but could be relevant to future events, such as a coal mining company that in subsequent years changes its operations to in situ coal gasification. [312] That commenter believed that, without guidance, the change from mining treatment to oil and gas treatment could be considered a change in accounting principle which requires retroactive revision. [313] We acknowledge this commenter's concerns. With respect to resources formerly considered mining activities, we view the change from mining treatment to oil and gas treatment as a change in accounting principle that is inseparable from a change in accounting estimate, which does not require retroactive revision.

VIII. Application of Interactive Data Format to Oil and Gas Disclosures

In the Proposing Release, we sought comment on the desirability of rules that would permit, or require, oil and gas companies to present the tabular disclosures in Subpart 1200 in interactive data format in addition to the currently required format. Most commenters addressing the topic supported the use of XBRL for oil and gas disclosures. [314] They believed using interactive data would be very helpful to investors and analysts. [315]

However, they also recommended that the Commission wait until a well-developed taxonomy exists. [316] Some recommended that the Commission implement it in stages, initially with a voluntary program. [317] One commenter recommended that the SEC work with other groups like SPE, IASB, and the United Nations to ensure tags ultimately become the industry standard. [318]

We agree that much of the disclosures regarding oil and gas companies would be conducive to interactive data. We intend to continue to work on developing a taxonomy for such disclosure. Once a well-developed taxonomy is created, we will address this issue further. We are not, however, adopting interactive data requirements in this release. We will continue to consider whether to require interactive oil and gas disclosure filings in the future and, if so, when such filings should be required based on the development status of an oil and gas disclosure taxonomy.

IX. Implementation Date

A. Mandatory Compliance

***43** We proposed to require companies to begin complying with the disclosure requirements for registration statements filed on or after January 1, 2010, and for annual reports on Forms 10-K and 20-F for fiscal years ending on or after December 31, 2009. A company may not apply the new rules to disclosures in quarterly reports prior to the first annual report in which the revised disclosures are required.

Fifteen commenters agreed that a delayed compliance date would be helpful in allowing companies to familiarize themselves with the new disclosure requirements before having to comply with them. [319] Four commenters supported the proposed January 1, 2010 compliance date of Securities Act filings and Exchange Act filings related to fiscal periods ending on or after December 31, 2009. [320] However, one conditioned this approval upon the adoption of the rules before December 31, 2008. [321] Another suggested one year after adoption of the rules. [322]

Four commenters believed that the proposed compliance date would be too soon. [323] One recommended a compliance date of December 31, 2010 to enable companies to make necessary changes in IT systems and data processing. [324] Another noted the magnitude of the proposed changes, length of time to design, program and implement system changes, and the goal of getting the best possible disclosure. [325] One commenter suggested delaying implementation for two years after adoption. [326]

We continue to believe that the proposed compliance dates are appropriate. However, as we discuss our revisions with the FASB and IASB, we will consider whether to delay the compliance date further.

B. Voluntary Early Compliance

Seven commenters recommended that early compliance not be permitted to maintain consistency and comparability of disclosure among issuers, which could be misleading or confusing to investors. [327] However, one commenter believed that the Commission should permit early adoption of the new rules because companies with different fiscal year ends are not comparable anyway. [328] One commenter suggested that the Commission permit companies to provide the new disclosures supplementally. [329] We agree that voluntary compliance may make disclosures incomparable. Therefore, companies may not elect to follow the new disclosure rules prior to the effective date.

X. Paperwork Reduction Act

A. Background

Our new rules and amendments contain "collection of information" requirements within the meaning of the Paperwork Reduction Act of 1995 ("PRA"). [330] We submitted the new rules and amendments to the Office of Management and Budget (OMB) for review in accordance with the PRA. [331] OMB has approved the revisions. The titles for these collections of information are:

(1) "Regulation S-K" (OMB Control No. 3235-0071); [332]

(2) "Industry Guides" (OMB Control No. 3235-0069);

(3) "Regulation S-X" (OMB Control No. 3235-0009);

***44** (4) "Form S-1" (OMB Control No. 3235-0065);

(5) "Form S-4" (OMB Control No. 3235-0324);

(6) "Form F-1" (OMB Control No. 3235-0258);

(7) "Form F-4" (OMB Control No. 3235-0325);

(8) "Form 10" (OMB Control No. 3235-0064);

(9) "Form 10-K" (OMB Control No. 3235-0063); and

(10) "Form 20-F" (OMB Control No. 3235-0063).

We adopted all of the existing regulations and forms pursuant to the Securities Act and the Exchange Act. These regulations and forms set forth the disclosure requirements for annual reports [333] and registration statements that are prepared by issuers to provide investors with the information they need to make informed investment decisions in registered offerings and in secondary market transactions. The industry guides supplement the existing regulations and forms and provide guidance with respect to industry-specific disclosures.

Our amendments to these existing forms are intended to modernize and update our reserves definitions to better reflect changes in the oil and gas industry and markets and new technologies that have occurred in the decades since the current rules were adopted, including expanding the scope of permissible technologies for establishing certainty levels of reserves, reserves classifications that a company can disclose in a Commission filing, and the types of resources that can be included in a company's reserves, as well as providing information regarding a company's internal controls over reserves estimation and the qualifications of person preparing reserves estimates or conducting reserves audits. The new rules and amendments also are intended to codify, modernize, and centralize the disclosure items for oil and gas companies in Regulation S-K. Finally, the new rules and amendments are intended to harmonize oil and gas disclosures by foreign private issuers with disclosures by domestic companies. Overall, the new rules and amendments attempt to provide improved disclosure about an oil and gas company's business and prospects without sacrificing clarity and comparability, which provide protection and transparency to investors.

The hours and costs associated with preparing disclosure, filing forms, and retaining records constitute reporting and cost burdens imposed by the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid control number.

Many, but not all, of the information collection requirements related to annual reports and registration statements will be mandatory. There is no mandatory retention period for the information disclosed, and the information will be publicly available on the EDGAR filing system.

B. Summary of Information Collections

The new rules and amendments increase existing disclosure burdens for annual reports on Forms 10-K [334] and 20-F and registration statements on Forms 10, 20-F, S-1, S-4, F-1, and F-4 by creating the following new disclosure requirements, many of which were requested by industry participants:

***45** • Disclosure of reserves from non-traditional sources (i.e., bitumen, shale, coalbed methane) as oil and gas reserves;

• Optional disclosure of probable and possible reserves;

• Optional disclosure of oil and gas reserves' sensitivity to price;

• Disclosure of the company's progress in converting proved undeveloped reserves into proved developed reserves, including those that are held for five years or more and an explanation of why they should continue to be considered proved;

• Disclosure of technologies used to establish reserves in a company's initial filing with the Commission and in filings which include material additions to reserves estimates;

• The company's internal controls over reserves estimates and the qualifications of the technical person primarily responsible for overseeing the preparation or audit of the reserves estimates;

• If a company represents that disclosure is based on the authority of a third party that prepared the reserves estimates or conducted a reserves audit or process review, filing a report prepared by the third party; and

• Disclosure based on a new definition of the term "by geographic area."

In addition, the amendments harmonize the disclosure requirements that apply to foreign private issuers with the disclosure requirements that apply to domestic issuers with respect to oil and gas activities. In particular, foreign private issuers must disclose the information required by Items 1205 through 1208 of Regulation S-K regarding drilling activities, present activities, delivery commitments, wells, and acreage, which previously were not specified in Appendix A to Form 20-F. These disclosure items codify the substantive disclosures called for by Items 4 through 8 of Industry Guide 2, although much of this disclosure may have been disclosed by some companies under the more general discussions of business and property on that form.

C. Revisions to PRA Burden Estimates

For purposes of the PRA, we estimated, in the Proposing Release, the total annual increase in the paperwork burden for all affected companies to comply with our proposed collection of information requirements to be approximately 7,472 hours of in-house company personnel time and to be approximately $1,659,000 for the services of outside professionals. [335] These estimates included the time and the cost of preparing and reviewing disclosure and filing documents. Our methodologies for deriving the above estimates are discussed below.

Our estimates represented the burden for all oil and gas companies that file annual reports or registration statements with the Commission. Based on filings received during the Commission's last fiscal year, we estimate that 241 oil and gas companies file annual reports and 67 oil and gas companies file registration statements. Most of the information called for by the new disclosure requirements, including the optional disclosure items, is readily available to oil and gas companies and includes information that is regularly used in their internal management systems. These disclosures include:

***46** • Disclosure of reserves from non-traditional sources (i.e., bitumen, shale, coalbed methane) as oil and gas reserves;

• Optional disclosure of probable and possible reserves;

• Optional disclosure of oil and gas reserves' sensitivity to price;

• Disclosure of the company's progress in converting proved undeveloped reserves into proved developed reserves, including those that are held for five years or more and an explanation of why they should continue to be considered proved;

• Disclosure of technologies used to establish reserves in a company's initial filing with the Commission and in filings which include material additions to reserves estimates;

• The company's internal controls over reserves estimates and the qualifications of the technical person primarily responsible for overseeing the preparation or audit of the reserves estimates;

• If a company represents that disclosure is based on the authority of a third party that prepared the reserves estimates or conducted a reserves audit or process review, filing a report prepared by the third party; and

• Disclosure based on a new definition of the term "by geographic area."

We estimated that, on average, each company would incur a burden of 35 hours to prepare these disclosures in an annual report or registration statement.

The amendments also apply several disclosure items to foreign private issuers that previously did not apply to them. As noted above, many of these disclosure items, such as drilling activities, wells and acreage, require the issuer to provide more specificity about its business and property. Foreign private issuers that do not currently provide such specificity would incur an added burden to present such disclosures in their filings. In the Proposing Release, we estimated that this burden would be 20 hours per foreign private issuer.

We received few comments regarding our estimates. Several large oil companies, and an industry organization that primarily represents large oil companies, believed that the estimates were too low. They believed that the new rules and amendments would increase their burden by 10,000 to 15,000 hours per year. However, these commenters included the initial cost to change their internal systems to provide the new required disclosures in their estimates. Based on conversations with these commenters, the staff understands that they believed that the ongoing burden would be approximately one third of that estimate. For purposes of its Paperwork Reduction Act estimate, the staff considers the ongoing annual burden and spreads the initial transitional burden of compliance with new rules and regulations over a three year period.

In addition, these commenters indicated that the two most significant burdens that stemmed from the proposed use of different prices for disclosure and accounting purposes and the increased detail in disclosures that would result from the proposed definition of the term "geographic area" and the proposed disclosure by type of accumulation. It should be noted that these commenters have significant reserves spread worldwide. Some of these large companies have as much as 10,000 times the amount of reserves of the median oil and gas company. These large companies likely would be more significantly impacted by the level of detailed disclosure that the proposals would have required compared to the vast majority of oil and gas companies in our reporting system, which do not have such extensive global operations. Therefore, we do not believe that the estimate provided by those large oil and gas companies necessarily would be applicable to most oil and gas companies. However, in response to the concerns that they expressed, the final rules do not require the use of different prices for disclosure and full cost accounting purposes. We also intend to continue to work with the FASB to align the accounting standards with that pricing mechanism. In addition, we have significantly reduced the level of detailed geographic and product disclosure that the rules require. Finally, we are providing for a substantial transition period to allow companies to adjust their systems to comply with the new rules. We believe that these changes will help to mitigate the increased burden of the new rules.

***47** We do, however, believe that our initial burden estimates may have been too low. We are therefore adjusting our burden estimate to reflect an additional increase of 100 hours per company per year. In addition, we are increasing our burden estimate for foreign private issuers by an additional 150 hours per company per year. Consistent with current Office of Management and Budget estimates and recent Commission rulemakings, we estimate that 25% of the burden of preparation of registration statements on Forms S-1, S-4, F-1, F-4, 10, and 20-F is carried by the company internally and that 75% of the burden is carried by outside professionals retained by the issuer at an average cost of $400 per hour. [336] We estimate that 75% of the burden of preparation of annual reports on Form 10-K or Form 20-F is carried by the company internally and that 25% of the burden is carried by outside professionals retained by the company at an average cost of $400 per hour. The portion of the burden carried by outside professionals is reflected as a cost, while

the portion of the burden carried by the company internally is reflected in hours. The following tables summarize the additional changes to the PRA estimates:

Table 1: Calculation of Incremental Paperwork Reduction Act Burden Estimates for Exchange Act Periodic Reports

Form	Annual Responses	Incremental Hours/Form	Incremental Burden	75% Issuer	25% Professional	$400 Professional Cost
	(A)	(B)	(C)=(A)*(B)	(D)=(C)*0.75	(E)=(C)*0.25	(F)=(E)*$400
10-K [337]	206	100	20,600	15,450	5,150	2,060,000
20-F	35	150	5,250	3,938	1,312	525,000
Total	241		25,850	19,388	6,462	2,585,000

Table 2: Calculation of Incremental Paperwork Reduction Act Burden Estimates for Securities Act Registration Statements and Exchange Act Registration Statements

Form	Annual Responses	Incremental Hours/Form	Incremental Burden	25% Issuer	75% Professional	$400 Professional Cost
	(A)	(B)	(C)=(A)*(B)	(D)=(C)*0.25	(E)=(C)*0.75	(F)=(E)*$400
10	5	100	500	125	375	150,000
20-F	2	150	300	75	225	90,000
S-1	38	100	3,800	950	2,850	1,140,000
S-4	17	100	1,700	425	1,275	510,000
F-1	2	150	300	75	225	90,000
F-4	3	150	450	112.5	337.5	135,000
Total	67		7,050	1762.5	5,287.5	2,115,000

D. Request for Comment

***48** We request comment in order to evaluate the accuracy of our estimates of the burden of the revised information collections. Any member of the public may direct to us any comments concerning the accuracy of these burden estimates. Persons who desire to submit comments on the collection of information requirements should direct their comments to the OMB, Attention: Desk Officer for the Securities and Exchange Commission, Office of Information and Regulatory Affairs, Washington DC 20503, and should send a copy of the comments to Secretary, Securities and

Exchange Commission, 100 F Street NE, Washington, DC 20549-1090, with reference to File No. S7-15-08. Requests for materials submitted to the OMB by us with regard to this collection of information should be in writing, refer to File No. S7-15-08, and be submitted to the Securities and Exchange Commission, Records Management Branch, 100 F Street NE, Washington, DC 20549-1126. Because OMB is required to make a decision concerning the collections of information between 30 and 60 days after publication, your comments are best assured of having their full effect if OMB receives them within 30 days of publication.

XI. Cost-Benefit Analysis

A. Background

We are adopting revisions to the oil and gas reserves disclosure regime of Regulation S-K and Regulation S-X under the Securities Act of 1933 and the Securities Exchange Act of 1934 and Industry Guide 2. The revisions are intended to modernize and update oil and gas disclosure. The oil and gas industry has experienced significant changes since the Commission initially adopted its current rules and disclosure regime between 1978 and 1982, including advancements in technology and changes in the types of projects in which oil and gas companies invest. The revisions also are intended to provide investors with improved disclosure about an oil and gas company's business and prospects without sacrificing clarity and comparability.

B. Description of New Rules and Amendments

Currently, Industry Guide 2 specifies many of the disclosure guidelines for oil and gas companies. The Industry Guide calls for disclosure relating to reserves, production, property, and operations in addition to that which is required by Regulation S-K. Generally, the new rules and amendments codify and update the existing Industry Guide 2 disclosures in a new Subpart 1200 of Regulation S-K, clarify the level of detail required to be disclosed, and require reserves disclosure in a tabular presentation. The changes relate primarily to disclosure of the following:

• Disclosure of reserves from non-traditional sources (e.g., bitumen, shale) as oil and gas reserves;

• Optional disclosure of probable and possible reserves;

• Optional disclosure of oil and gas reserves' sensitivity to price;

• Disclosure of the company's progress in converting proved undeveloped reserves into proved developed reserves, including those that are held for five years or more and an explanation of why they should continue to be considered proved;

***49** • Disclosure of technologies used to establish reserves in a company's initial filing with the Commission and in filings which include material additions to reserves estimates;

• The company's internal controls over reserves estimates and the qualifications of the technical person primarily responsible for overseeing the preparation or audit of the reserves estimates;

• If a company represents that disclosure is based on the authority of a third party that prepared the reserves estimates or conducted a reserves audit or process review, filing a report prepared by the third party; and

• Disclosure based on a new definition of the term “by geographic area.”

The new rules and amendments also make revisions and additions to the definitions section of Rule 4-10 of Regulation S-X. These revisions update and extend reserves definitions to reflect changes in the oil and gas industry and new technologies. In particular, the new and revised definitions:

• Expand the definition of "oil and gas producing activities" to include the extraction of hydrocarbons from oil sands, shale, coalbeds, or other natural resources and activities undertaken with a view to such extraction;

• Add a definition of "reasonable certainty" to provide better guidance regarding the meaning of that term;

• Add a definition of "reliable technology" to permit the use of new technologies to establish proved reserves;

• Define probable and possible reserves estimates; and

• Add definitions to explain new terms used in the revised definitions.

In addition, the amendments harmonize the disclosure requirements that apply to foreign private issuers with the disclosure requirements that apply to domestic issuers with respect to oil and gas activities. In particular, the amendments to Form 20-F will require foreign private issuers to disclose the information required by Items 1205 through 1208 of Regulation S-K regarding drilling activities, present activities, delivery commitments, wells, and acreage, which are not currently specified under Appendix A to Form 20-F, although much of this disclosure is often disclosed by companies under the more general discussions of business and property on that form.

C. Benefits

We expect that the new rules and amendments will increase transparency in disclosure by oil and gas companies by providing improved reporting standards. The revisions to the definitions should align our disclosure rules with the realities of the modern oil and gas markets. For example, we believe that the inclusion of bitumen and other resources from continuous accumulations as oil and gas producing activities is consistent with company practice to treat these operations as part of, rather than separate from, their traditional oil and gas producing activities. Similarly, the expansion of permissible technologies for determining certainty levels of reserves recognizes that companies now take advantage of these technological advances to make business decisions. We expect these new rules and amendments to improve disclosure by aligning the required disclosure more closely with the way companies conduct their business.

***50** Allowing companies to disclose probable and possible reserves is designed to improve investors' understanding of a company's unproved reserves. For those companies that already disclose such reserves on their Web sites, the new rules and amendments permit them to unify such disclosures into a single, filed document. Disclosure of these categories of reserves beyond proved reserves may foster better company valuations by investors, creditors, and analysts, thus improving capital allocation and reducing investment risk. Because some of the disclosure items are optional, the amount of increased transparency will depend on the extent to which companies elect to provide the additional disclosures permitted under the new rules. If companies elect not to provide the optional disclosure, then the benefits from increased transparency would be limited to the extent that the new rules improve the transparency of proved reserves disclosure.

By permitting increased disclosure and promoting more consistency and comparability among disclosures, the new rules and amendments provide a mechanism for oil and gas companies to seek more favorable financing terms through more disclosure and increased transparency. Investors may be able to request such additional disclosure in Commission filings during negotiations regarding bond and debt covenants. Thus, we expect that, as a result of competing factors in the marketplace, the new rules and amendments will result in increased transparency, either because companies elect to voluntarily provide increased disclosure, or because investors may discount companies that do not do so. We believe

that the benefits and costs of disclosing unproved reserves ultimately will be determined by market conditions, rather than regulatory requirements.

We expect that permitting companies to disclose probable and possible reserves will increase market transparency, provide investors with more reserves information, and allow for more accurate production forecasts. By relating standards used in deterministic methods to comparable percentage thresholds used in probabilistic methods for establishing a given level of certainty, the new rules and amendments should result in increased standardization in reporting practices which would promote comparability of reserves across companies. The new rules would define the term "reliable technology" to permit oil and gas companies to prepare their reserves estimates using new types of technology that companies are not permitted to use under the current rules. This new definition also is designed to encompass new technologies as they are developed in the future, thereby providing investors and the market with a more comprehensive understanding of a company's estimated reserves.

We expect that replacing the Industry Guide with new Regulation S-K items will provide greater certainty because the disclosure requirements would be in rules established by the Commission. In addition, we believe that disclosure of reserves concentrated in particular countries should provide better information to investors regarding the geopolitical risk to which some companies may be exposed. Overall, we believe that the amendments, as a whole, will provide investors with more information that management uses to make business decisions in the oil and gas industry.

1. Average price and first of the month price

***51** The revision to change the price used to calculate reserves from a year-end single-day price to an historical average price over the company's most recently ended fiscal year is expected to reduce the effects of seasonality. In particular, many commenters suggested the use of a 12-month average price to mitigate the risk of a year-end price affected by short-term price volatility such that it does not reflect the true nature of a company investment, planning, and performance. Our Office of Economic Analysis studied the publicly-available pricing data and found evidence of year-end price volatility. The historical volatility of year-end prices is between 16% and 41% higher than the volatility of annual average prices depending on the grade and geography of oil or gas prices considered. This difference demonstrates variability in oil and gas prices, likely due to seasonal demands, that does not reflect long term fundamental values, but that cannot be immediately corrected due to the costs of transportation and speed of delivery. Given this variability, it is likely that a 12-month average price will yield better reserves estimates-that reflect management planning and investment to the extent that they discount the short-term component of oil and gas prices-than a year-end spot price.

Many of the commenters to the Proposing Release supported the use of an historical price, even though this approach may be less useful in determining the fair value of a company's reserves compared to a futures market price. We believe investors are concerned not only about the quantity of a company's reserves, but also about the profitability of those reserves. We also recognize that some reserves will be of more value than others due to extraction and transportation costs. As a result, since the new rules and amendments require the use of a single price to estimate reserves and since that price may not be as informative of value as a futures price, the new rules and amendments also gives companies the option of providing a sensitivity analysis and reporting reserves based on additional price estimates.

If companies elect to provide a sensitivity analysis, we expect this to benefit investors by allowing them to formulate better projections of company prospects that are more consistent with management's planning price and prices higher and lower that may reasonably be achieved. In particular, it allows companies the flexibility to communicate how their reserves would change under alternative economic conditions, including those that they may believe better reflect their future prospects. We expect that companies would be more likely to adopt a sensitivity analysis approach if investors and other market participants determine that this information would reduce investment risk, or if companies believe such disclosure will reduce the cost of capital formation. The new rules and amendments should result in increased price stability in determining whether reserves are economically producible. This should mitigate seasonal effects, resulting in

reserves estimates that more closely reflect those used by management in planning and investment decisions. We expect this to allow for more accurate company assessments and improve projections of company prospects.

***52** In addition to an average annual price, many of the commenters suggested that the price be computed on the first day of the month. Two reasons were given. First, beginning month prices would allow an additional month of preparation time in calculating reserves for financial reporting. Second, some commenters suggested that month-end, and in particular year-end, prices were subject to additional short-term volatility because many oil and gas financial contracts expire on those days, resulting in higher than normal trading activity. While the staff of the Office of Economic Analysis did not find systematic evidence of increased volatility around month-end or year-end oil and gas prices relative to other days in the month, we agree that additional preparation time is beneficial because reserves estimations require significant time and resources. An additional month would help reduce errors that might otherwise result from the financial reporting time constraints.

Finally, we believe that revising the full cost accounting method to use the same pricing mechanism as the reserves disclosure requirements should provide consistency between the disclosure and accounting presentations. The use of a single pricing method should also minimize the incremental burden placed on companies as a result of the rule changes because they would not be required to prepare two separate estimates.

2. Probable and possible reserves

We anticipate that disclosure of probable and possible reserves, if companies elect to do so, will allow investors, creditors, and other users to better assess a company's reserves. In addition, the tabular format for disclosing probable and possible reserves should reduce investor search costs by making it easier to locate reserves disclosures and facilitating comparability among oil and gas companies.

While we recognize that many companies already communicate with investors about their unproved and other reserves through alternative means, such as company Web sites or press releases, some commenters remarked that an objective comparison among companies is difficult because different companies have defined such reserves classifications differently. We believe that permitting disclosure of this information in Commission filings will provide a more consistent means of comparison because disclosure in our filings must comply with our definitions. Although our new rules make disclosure of probable and possible reserves optional, and large oil and gas producers suggested in their comment letters that such disclosure would be of limited benefit because of the relative uncertainty of those estimates, we believe that competitive pressures within the industry might make it beneficial for large producers to disclose this information. Increased disclosure might, for example, improve credit quality and lower the cost of debt financing, or reduce the risk associated with business transactions between the company and its customers or suppliers. Regardless, since the disclosure decision is voluntary, it should occur only to the extent that companies find that the benefits justify the costs of doing so.

***53** We believe that permitting the disclosure of probable and possible reserves will benefit smaller companies, in particular. Larger issuers tend to already have large amounts of proved reserves. The new rules and amendments permit smaller companies, who often participate in a significant amount of exploratory activity, to better disclose their business prospects. Consequently, we anticipate that the new rules and amendments could lead to efficiencies in capital formation, as more information will be available regarding the prospects of smaller issuers.

3. Reserves estimate preparers and reserves auditors

We believe that investors would benefit from a greater level of assurance with respect to the reliability of reserve estimates, particularly if companies are allowed to disclose unproved reserves because unproved reserves are inherently less certain than proved reserves. We proposed disclosure requirements relating to whether the person primarily responsible for

preparing reserves estimates or conducting a reserves audit, if the company represents that it has enlisted a third party to conduct a reserves audit, met a specified list of qualifications based on the Society of Petroleum Engineers's reserves audit guidelines. However, commenters expressed concern that many of these qualifications such as membership in professional societies were not standardized worldwide. Without control over those standards, the disclosures would not be comparable. We agree with those commenters and, as suggested, have adopted a more principles-based disclosure requirement. Under the adopted rules, a company must disclose its internal controls over reserves estimations and disclose the qualifications of the primary technical person in charge of overseeing the reserves estimations or reserves audit. We believe that disclosure of the individual qualifications, rather than simple acknowledgement of meeting certain criteria, which may differ within countries, will provide investors with better information to compare companies and the qualifications of persons in charge of the reserves estimations and reserves audits, which should enable more accurate assessments of the quality of audit reports. We believe that disclosure of a company's internal controls over reserves estimates will allow investors to assess whether a company has implemented appropriate controls without dictating to companies specified criteria for establishing those controls.

Although we do not expect all companies to undertake a third-party reserves audit because our rules do not require such a reserves audit, third party participation in the estimation of reserves should add credibility to a company's public disclosure. The opinion of an objective, qualified person on the reserves estimates is designed to increase the reliability of these estimates and investor confidence.

4. Development of proved undeveloped reserves

The new rules and amendments also require disclosure of a company's progress in developing undeveloped reserves and the reasons why any PUDs have remained undeveloped for five years or more. We believe that such disclosure supplements our amendments that ease the requirements for recognizing PUDs and thereby should increase the amount of PUDs disclosed in filings, even though the properties representing such proved reserves have not yet been developed and therefore do not provide the company with cash flow. We believe that the disclosure requirements will increase the accountability of companies that disclose reserves for extended periods of time without adequate justification for their failure to develop those reserves.

5. Disclosure guidance

***54** The release also provides guidance about the type of information that companies should consider disclosing in Management's Discussion and Analysis, and allows companies to include this information with the relevant tables. Providing the additional guidance should assist companies in preparing their disclosure, improving the quality and consistency of this disclosure. Locating this discussion with the tables themselves should benefit investors by simplifying the presentation of disclosure, and providing insight into the information disclosed in the tables.

6. Updating of definitions related to oil and gas activities

The new rules and amendments also update the definition of the term “oil and gas producing activities” as well as updating or creating new definitions for other terms related to such activities, including “proved oil and gas reserves” and “reasonable certainty.” We believe that updating these definitions will help companies disclose oil and gas operations in the same way that companies manage and assess those operations. This includes resources extracted from nontraditional sources that companies consider oil and gas activities, which previously were excluded them from the definition of “oil and gas producing activities.” In addition, adding definitions for terms like “reasonable certainty” (which currently is in the definition of “proved oil and gas reserves,” but not defined) will provide companies with added guidance and assist them in providing consistent disclosures between companies.

7. Harmonizing foreign private issuer disclosure

We believe that the harmonization of foreign private issuer disclosure will help make disclosures of foreign private issuers more comparable with domestic companies. The oil and gas industry has changed significantly since the rules were adopted. Today, many companies have interests that span the globe. In addition, many of these projects are joint ventures between foreign private issuers and domestic companies. Having differing levels of disclosure for companies that may be participating in the same projects harms comparability between investment choices. The harmonization of foreign private issuer disclosure is intended to promote comparability among all oil companies.

D. Costs

We expect that the new rules and amendments will result in initial and ongoing costs to oil and gas companies. These burdens will vary significantly among companies. Based on disclosures in company filings, the largest oil and gas companies can have as much as 10,000 times the reserves of the median reporting oil and gas company. As would be expected, companies that have more reserves and larger operations will have a correspondingly larger amount of information that they must disclose and, therefore, the burden of complying with our disclosure requirements would be greater for larger companies.

Although we are adding a new subpart to Regulation S-K to set forth the disclosure requirements that are unique to oil and gas companies, the subpart, for the most part, codifies the substantive disclosure called for by Industry Guide 2. The disclosure requirements have been updated and clarified, and require the disclosure to be presented in a tabular format, where appropriate. Although many companies already present this information in tabular form, for companies that do not, this requirement could impose a burden on companies as they transition from a narrative to tabular disclosure format. We expect, however, that any increased preparation costs would be highest in the first year after adoption, but would decline in subsequent years as companies adjust to the new format. We think this burden is justified because tabular disclosure will increase comparability and facilitate understanding and analysis by investors.

1. Probable and possible reserves

***55** Allowing disclosure of probable and possible reserves could create an increased risk of litigation because these categories of reserves estimates are less certain than proved reserves. Companies may choose not to disclose such reserves, in part, because of the risk of incurring litigation costs to defend their disclosures due to the increased uncertainty of these categories. Disclosure of probable and possible reserves may also result in revealing competitive information because it might reveal a company's business strategy, such as the geographic location and nature of its exploration and discoveries. For example, if geographical detail can be inferred from estimates of unproved reserves, this might reveal information about the value of a company's assets to competitors and could put the producer at a competitive disadvantage. We have reduced the level of geographical detail to reduce the burden on companies, while still providing sufficient information to investors regarding concentrations of risk, including political risk.

We expect companies will incur costs in preparing the additional disclosures such as calculating and aggregating the reserve projections in a prescribed format. However, if probable and possible categories of reserves have different extraction cost structures and they are not disclosed separately from proved reserves, this could result in increased uncertainty in an investor's assessment of a company's prospects.

Companies also expressed concern that mandatory disclosure of probable and possible reserves could expose them to increased litigation risk. We believe that making these disclosures voluntary mitigates these concerns. Companies unwilling to bear the added risk can simply opt not to provide this disclosure.

2. Reserves estimate preparers and reserves auditors

If a company chooses to use a third party to prepare or audit reserve estimates, it will incur costs to hire these outside consultants. The new rules and amendments do not require companies to hire such a person. If enough companies that currently do not use such consultants begin to hire them, we believe that industry wages could potentially increase due to increased demand for reserves calculating specialists unless that demand is compensated by an increase in the supply of such persons. If wages increased, then all companies, not just those employing third party consultants, would incur added costs.

Large companies may be less likely to hire third parties because they tend to have staff to make reserves estimates. However, if such large companies chose to hire third-party consultants, third parties would expend significantly more effort on such projects than for smaller companies because larger companies have more properties to evaluate. Thus, we expect third-party fees, and the time required to conduct such projects, would scale upwards with the quantity of company reserves.

Disclosure of unproved reserves without third-party certification may present a risk with respect to smaller oil and gas producers because smaller companies are likely to have less in-house expertise and ability to accurately estimate such reserves than larger companies. However, we understand that the vast majority of smaller oil and gas companies already hire third parties to estimate their reserves or certify their estimates.

3. Consistency with IASB

***56** Some commenters remarked that the International Accounting Standards Board is currently preparing a set of guidelines for oil and gas extractive activities, including definitions of oil and gas reserves, and recommended that the Commission align its regulations with those guidelines. We intend to monitor this initiative and work with the IASB, but our new rules may differ from the guidelines ultimately established by the International Accounting Standards Board. This could make it more difficult for investors to compare foreign and domestic companies.

4. Change in pricing mechanism

We do not anticipate significant costs with the change in pricing mechanisms for establish reserves. Companies simply will apply a different price scenario to determine the economic producibility of reserves. It is possible that the use of a 12-month average price may reduce the cost of disclosure because it should reduce the volatility of reserves estimates and therefore reduce the need to make significant adjustments to those estimates on a yearly basis due to daily price swings.

5. Disclosure of PUD development

The required disclosure of a company's progress in developing PUDs will increase the cost of reporting. However, we believe that companies regularly track their progress in this arena. Until a company develops a property, it cannot begin to realize the cash flows from production and the actual sale of products. Thus, the development of reserves is of utmost importance to an oil and gas company's business.

6. Increased geographic disclosure

The requirements to provide increased geographic disclosure of reserves and production, in certain circumstances, may increase the amount of disclosure that a company must present. However, because the threshold that we are adopting in the release is 15% of the company's total reserves, a company would be required to disclose, at most, reserves and production in six countries. Considering the relatively large proportion of reserves that must exist in a country before a company is required to provide country-level disclosure, we believe that such information is readily available to companies. As noted in the body of this release, we have attempted to draft this provision to minimize any competitive harm that such disclosure may cause a company.

7. Harmonizing foreign private issuer disclosure

The harmonization of foreign private issuer disclosure regarding oil and gas activities may increase the burden on foreign private issuers. However, it is our understanding that the large foreign private issuers already voluntarily provide disclosure comparable to the level required from domestic companies. Much of the added new disclosure relates to the day-to-day business and properties of these companies, including drilling activities, number of wells and acreage. This is information that is central to the activities of oil and gas companies, and therefore is readily known to these companies. We believe that applying Subpart 1200 to these companies could prompt more detailed disclosure regarding these activities, which would cause these companies to incur some cost. The provision permitting foreign private issuers to omit disclosures if prohibited from making those disclosures by their home jurisdiction could mitigate some of these costs.

XII. Consideration of Burden on Competition and Promotion of Efficiency, Competition, and Capital Formation

***57** Securities Act Section 2(b) [338] and Section 3(f) of the Exchange Act [339] require us, when engaging in rulemaking where we are required to consider or determine whether an action is necessary or appropriate in the public interest, to consider, in addition to the protection of investors, whether the action will promote efficiency, competition, and capital formation. Section 23(a)(2) of the Exchange Act [340] requires us, when adopting rules under the Exchange Act, to consider the impact that any new rule would have on competition. In addition, Section 23(a)(2) prohibits us from adopting any rule that would impose a burden on competition not necessary or appropriate in furtherance of the purposes of the Exchange Act.

We expect the new rules and amendments to increase efficiency and enhance capital formation, and thereby benefit investors, by providing the market with better information based on updated technology as well as increased information covering a broader range of reserves classifications held by a company and reserves found in non-traditional sources of oil and gas. Such increased and improved information should permit investors to better assess a company's prospects. In particular, the existing prohibitions against disclosing reserves other than proved reserves, using modern technology to determine the certainty level of reserves, and including resources from non-traditional sources can lead to incomplete disclosures about a company's actual resources and prospects. The new rules and amendments are designed to better align the disclosure requirements with the way companies make business decisions.

We believe that permitting the disclosure of probable and possible reserves will benefit smaller companies, in particular. Larger issuers tend to already have large amounts of proved reserves. The new rules and amendments permit smaller companies, who often participate in a significant amount of exploratory activity, to better disclose their business prospects. Consequently, we anticipate that the new rules and amendments could lead to efficiencies in capital formation, as more information will be available regarding the prospects of smaller issuers.

The effects of the new rules and amendments on competition are difficult to predict, but it is possible that permitting public issuers to disclose probable and possible reserves will lead to a reallocation of capital, as companies that previously could show few proved reserves will be able to disclose a broader range of its business prospects, making it easier for these issuers to raise capital and compete with companies that have large proved reserves. Although our new rules make disclosure of probable and possible reserves optional, and large oil and gas producers suggested in their comment letters that such disclosure would be of limited benefit because of the relative uncertainty associated with such reserves, we believe that competitive pressures within the industry might make it beneficial for large producers to disclose this information. Increased disclosure might, for example, improve credit quality and lower the cost of debt financing, or reduce the risk associated with business transactions between the company and its customers or suppliers.

XIII. Final Regulatory Flexibility Analysis

***58** We have prepared this Final Regulatory Flexibility Analysis in accordance with Section 603 of the Regulatory Flexibility Act.[341] This analysis relates to the modernization of the oil and gas disclosure requirements. An Initial Regulatory Flexibility Analysis (IRFA) was prepared in accordance with the Regulatory Flexibility Act in conjunction with the Proposing Release. The Proposing Release included, and solicited comment on, the IRFA.

A. Reasons for, and Objectives of, the New Rules and Amendments

The Commission adopted the current disclosure regime for oil and gas producing companies in 1978 and 1982, respectively. Since that time, there have been significant changes in the oil and gas industry and markets, including technological advances, and changes in the types of projects in which oil and gas companies invest their capital. On December 12, 2007, the Commission published a Concept Release on possible revisions to the disclosure requirements relating to oil and gas reserves.[342] Prior to our issuance of the Concept Release, many industry participants had expressed concern that our disclosure rules are no longer in alignment with current industry practices and therefore have limited usefulness to the market and investors.

Our new rules and amendments to these existing forms are intended to modernize and update our reserves definitions to reflect changes in the oil and gas industry and markets and new technologies that have occurred in the decades since the current rules were adopted, including expanding the scope of permissible technologies for establishing certainty levels of reserves, reserves classifications that a company can disclose in a Commission filing, and the types of resources that can be included in a company's reserves, as well as providing information regarding the objectivity and qualifications of any third party primarily responsible for preparing or auditing the reserves estimates, if the company represents that it has enlisted a third party to conduct a reserves audit, and the qualifications and measures taken to assure the independence and objectivity of any employee primarily responsible for preparing or auditing the reserves estimates. The amendments also harmonize our full cost accounting rules with the changes that we are adopting with respect to disclosure of oil and gas reserves. The new rules and amendments also are intended to codify, modernize and centralize the disclosure items for oil and gas companies into Regulation S-K. Finally, the new rules and amendments are intended to harmonize oil and gas disclosures by foreign private issuers with disclosures by domestic companies. Overall, the new rules and amendments attempt to provide improved disclosure about an oil and gas company's business and prospects without sacrificing clarity and comparability, which provide protection and transparency to investors.

B. Significant Issues Raised by Commenters

We did not receive comments specifically addressing the impact of the proposed rules and amendments on small entities. However, several of the comments related to burdens that would be placed on all companies affected by the proposals. In particular, commenters believed that the proposal to require the use of different prices for disclosure and accounting purposes would impose a significant burden on all oil and gas companies. We have considered those comments and are adopting amendments to our disclosure rules and the full cost accounting method that will require the use of a single price for both purposes. Similarly, commenters were concerned that certain aspects of the proposal, such as the new definition of geographic area and disclosure by accumulation type would increase the detail in the disclosures significantly. We agree with those commenters and have significantly reduced the level of detail required in the disclosure requirements.

C. Small Entities Subject to the New Rules and Amendments

***59** The new rules and amendments affect small entities that are engaged in oil and gas producing activities, the securities of which are registered under Section 12 of the Exchange Act or that are required to file reports under Section 15(d) of the Exchange Act. The new rules and amendments also would affect small entities that file, or have filed, a registration statement that has not yet become effective under the Securities Act and that has not been withdrawn. Securities Act

Rule 157 [343] and Exchange Act Rule 0-10(a) [344] define an issuer to be a "small business" or "small organization" for purposes of the Regulatory Flexibility Act if it had total assets of $5 million or less on the last day of its most recent fiscal year. The new rules and amendments affect small entities that are operating companies and engage in oil and gas producing activities. Based on filings in 2007, we estimate that there are approximately 28 oil and gas companies that may be considered small entities.

D. Reporting, Recordkeeping, and Other Compliance Requirements

The new rules and amendments to Regulation S-K expand some existing disclosures, and eliminate others. In particular, the new disclosure requirements, many of which were requested by industry participants, include the following:

• Disclosure of reserves from non-traditional sources (e.g., bitumen and shale) as oil and gas reserves;

• Optional disclosure of probable and possible reserves;

• Optional disclosure of oil and gas reserves' sensitivity to price;

• Disclosure of the development of proved undeveloped reserves, including those that are held for 5 years or more and an explanation of why they should continue to be considered proved;

• Disclosure of technologies used to establish reserves in a company's initial filing with the Commission and in filings which include material additions to reserves estimates;

• Disclosure of the company's internal controls over reserves estimates and the qualifications the technical person primarily responsible for overseeing the preparation or audit of the reserves estimates;

• If a company represents that disclosure is based on the authority of a third party that prepared the reserves estimates or conducted a reserves audit or process review, filing a report prepared by the third party; and

• Disclosure based on a new definition of the term "by geographic area."

There would be no mandatory retention period for the information disclosed, and the information disclosed would be made publicly available on the EDGAR filing system.

E. Agency Action to Minimize Effect on Small Entities

We considered different compliance standards for the small entities that will be affected by the new rules and amendments. In the Proposing Release, we solicited comment regarding the possibility of different standards for small entities. We did not receive comment on this particular issue. However, we believe that such differences would be inconsistent with the purposes of the rules.

***60** The new rules and amendments are designed to modernize the disclosure requirements for oil and gas companies. As such, we believe all oil and gas companies will benefit from the modernization of the rules. Under the new rules and amendments, all companies will be allowed to use modern technologies to establish reserves and include operations in unconventional resources in their oil and gas reserves estimates. Adopting differing standards for disclosure for small entities would significantly reduce the comparability between companies. However, the new rules and amendments do permit companies to disclose probable and possible reserves. We believe the removal of the prohibition against such reserves will enable companies to disclose a broader view of their prospects. We believe this will particularly benefit

smaller oil and gas companies that may have significant unproved reserves in their portfolio. Such disclosure may assist smaller companies in raising capital for development projects in those properties.

XIV. Update to Codification of Financial Reporting Policies

The Commission amends the "Codification of Financial Reporting Policies" announced in Financial Reporting Release No. 1 (April 15, 1982) [47 FR 21028] as follows:

1. By removing the seven introductory paragraphs before Section 406.01, the last sentence of Section 406.01.c.vi., the first paragraph of Section 406.01.d, the introductory paragraph of Section 406.02.d, and removing and reserving Sections 406.01.a., 406.02.a, 406.02.b., 406.02.d.iii., and 406.02.e.

2. By revising Section 406.01B to read as follows:

The rules in Rule 4-10(b) specify that the application of successful efforts shall comply with SFAS 19. In 2008, the Commission published amendments to the definitions in Rule 4-10(a) that may not align completely with SFAS 19's existing terminology and application. Further, paragraph 7 of SFAS 25 states: "For purposes of applying this Statement and Statement 19, the definition of proved reserves, proved developed reserves, and proved undeveloped reserves shall be the definitions adopted by the SEC for its reporting purposes that are in effect on the date(s) as of which the reserve disclosures are to be made. Previous reported quantities shall not be revised retroactively if the SEC definitions are changed." In any case, the Commission expects the practical application of SFAS 19 will remain unchanged other than incorporating the effects of the new definitions.

3. By removing the first three sentences of Section 406.02.c. and in the fourth sentence replacing the phrase "this sort of information" with "information to assess the impact of oil and gas producing activities on near term cash flows and liquidity".

4. By adding a new Section 406.03 entitled "Transition" and including the text of the 3rd paragraph of Section VII.B and the last sentence of the 2nd paragraph of Section VII.C of this release.

***61** 5. By adding a new Section 406.04 entitled "MD&A Guidance" and including the text beginning with the last sentence of the 2nd paragraph of Section V of this release through the end of that Section.

The Codification is a separate publication of the Commission. It will not be published in the Federal Register or Code of Federal Regulations.

XV. Statutory Basis and Text of Amendments

We are adopting the amendments pursuant to Sections 3(b), 6, 7, 10 and 19(a) of the Securities Act and Sections 12, 13, 14(a), 15(d), and 23(a) of the Exchange Act, as amended.

TEXT OF AMENDMENTS

List of Subjects

17 CFR Part 210

Accountants, Accounting, Reporting and recordkeeping requirements, Securities. 17 CFR Parts 211, 229 and 249

Reporting and recordkeeping requirements, Securities.

For the reasons set out in the preamble, title 17, chapter II of the Code of Federal Regulations is amended as follows:

PART 210—FORM AND CONTENT OF AND REQUIREMENTS FOR FINANCIAL STATEMENTS, SECURITIES ACT OF 1933, SECURITIES EXCHANGE ACT OF 1934, PUBLIC UTILITY HOLDING COMPANY ACT OF 1935, INVESTMENT COMPANY ACT OF 1940, INVESTMENT ADVISERS ACT OF 1940, AND ENERGY POLICY AND CONSERVATION ACT OF 1975

1. The authority citation for part 210 continues to read as follows:

Authority:15 U.S.C. 77f, 77g, 77h, 77j, 77s, 77z-2, 77z-3, 77aa(25), 77aa(26), 78c, 78j-1, 78l, 78m, 78n, 78*o*(d), 78q, 78u-5, 78w(a), 78ll, 78mm, 80a-8, 80a-20, 80a-29, 80a-30, 80a-31, 80a-37(a), 80b-3, 80b-11, 7202 and 7262, unless otherwise noted.

***62** 2. Amend § 210.4-10 by:

a. Redesignating the subparagraphs in paragraph (a) as follows:

Old paragraph number	New paragraph number
(a)(1)	(a)(16)
(a)(2)	(a)(24)
(a)(3)	(a)(22)
(a)(4)	(a)(25)
(a)(5)	(a)(23)
(a)(6)	(a)(34)
(a)(7)	(a)(21)
(a)(8)	(a)(15)
(a)(9)	(a)(29)
(a)(10)	(a)(13)
(a)(11)	(a)(9)
(a)(12)	(a)(32)
(a)(13)	(a)(33)
(a)(14)	(a)(1)
(a)(15)	(a)(12)
(a)(16)	(a)(7)

(a)(17) (a)(20)

b. Adding new paragraphs (a)(2), (a)(3), (a)(4), (a)(5), (a)(6), (a)(8), (a)(10), (a)(11), (a)(14), (a)(17), (a)(18), (a)(19), (a)(26), (a)(27), (a)(28), (a)(30), (a)(31), and (c)(8);

c. Revising newly redesignated paragraphs (a)(13), (a)(16), (a)(22), (a)(24), and (a)(25); and

d. Removing the authority citations following the section.

The additions and revisions read as follows:

§ 210.4-10 Financial accounting and reporting for oil and gas producing activities pursuant to the Federal securities laws and the Energy Policy and Conservation Act of 1975.

63** **

(a) Definitions. ***

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(2) Analogous reservoir. Analogous reservoirs, as used in resources assessments, have similar rock and fluid properties, reservoir conditions (depth, temperature, and pressure) and drive mechanisms, but are typically at a more advanced stage of development than the reservoir of interest and thus may provide concepts to assist in the interpretation of more limited data and estimation of recovery. When used to support proved reserves, an "analogous reservoir" refers to a reservoir that shares the following characteristics with the reservoir of interest:

(i) Same geological formation (but not necessarily in pressure communication with the reservoir of interest);

(ii) Same environment of deposition;

(iii) Similar geological structure; and

(iv) Same drive mechanism.

Instruction to paragraph (a)(2): Reservoir properties must, in the aggregate, be no more favorable in the analog than in the reservoir of interest.

(3) Bitumen. Bitumen, sometimes referred to as natural bitumen, is petroleum in a solid or semi-solid state in natural deposits with a viscosity greater than 10,000 centipoise measured at original temperature in the deposit and atmospheric pressure, on a gas free basis. In its natural state it usually contains sulfur, metals, and other non-hydrocarbons.

(4) Condensate. Condensate is a mixture of hydrocarbons that exists in the gaseous phase at original reservoir temperature and pressure, but that, when produced, is in the liquid phase at surface pressure and temperature.

(5) Deterministic estimate. The method of estimating reserves or resources is called deterministic when a single value for each parameter (from the geoscience, engineering, or economic data) in the reserves calculation is used in the reserves estimation procedure.

(6) Developed oil and gas reserves. Developed oil and gas reserves are reserves of any category that can be expected to be recovered:

(i) Through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and

(ii) Through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

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(8) Development project. A development project is the means by which petroleum resources are brought to the status of economically producible. As examples, the development of a single reservoir or field, an incremental development in a producing field, or the integrated development of a group of several fields and associated facilities with a common ownership may constitute a development project.

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(10) Economically producible. The term economically producible, as it relates to a resource, means a resource which generates revenue that exceeds, or is reasonably expected to exceed, the costs of the operation. The value of the products that generate revenue shall be determined at the terminal point of oil and gas producing activities as defined in paragraph (a)(16) of this section.

***64** (11) Estimated ultimate recovery (EUR). Estimated ultimate recovery is the sum of reserves remaining as of a given date and cumulative production as of that date.

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(13) Exploratory well. An exploratory well is a well drilled to find a new field or to find a new reservoir in a field previously found to be productive of oil or gas in another reservoir. Generally, an exploratory well is any well that is not a development well, an extension well, a service well, or a stratigraphic test well as those items are defined in this section.

(14) Extension well. An extension well is a well drilled to extend the limits of a known reservoir.

*****

(16) Oil and gas producing activities. (i) Oil and gas producing activities include:

(A) The search for crude oil, including condensate and natural gas liquids, or natural gas ("oil and gas") in their natural states and original locations;

(B) The acquisition of property rights or properties for the purpose of further exploration or for the purpose of removing the oil or gas from such properties;

(C) The construction, drilling, and production activities necessary to retrieve oil and gas from their natural reservoirs, including the acquisition, construction, installation, and maintenance of field gathering and storage systems, such as:

(1) Lifting the oil and gas to the surface; and

(2) Gathering, treating, and field processing (as in the case of processing gas to extract liquid hydrocarbons); and

(D) Extraction of saleable hydrocarbons, in the solid, liquid, or gaseous state, from oil sands, shale, coalbeds, or other nonrenewable natural resources which are intended to be upgraded into synthetic oil or gas, and activities undertaken with a view to such extraction.

Instruction 1 to paragraph (a)(16)(i): The oil and gas production function shall be regarded as ending at a "terminal point", which is the outlet valve on the lease or field storage tank. If unusual physical or operational circumstances exist, it may be appropriate to regard the terminal point for the production function as:

a. The first point at which oil, gas, or gas liquids, natural or synthetic, are delivered to a main pipeline, a common carrier, a refinery, or a marine terminal; and

b. In the case of natural resources that are intended to be upgraded into synthetic oil or gas, if those natural resources are delivered to a purchaser prior to upgrading, the first point at which the natural resources are delivered to a main pipeline, a common carrier, a refinery, a marine terminal, or a facility which upgrades such natural resources into synthetic oil or gas.

Instruction 2 to paragraph (a)(16)(i): For purposes of this paragraph (a)(16), the term saleable hydrocarbons means hydrocarbons that are saleable in the state in which the hydrocarbons are delivered.

(ii) Oil and gas producing activities do not include:

(A) Transporting, refining, or marketing oil and gas;

***65** (B) Processing of produced oil, gas or natural resources that can be upgraded into synthetic oil or gas by a registrant that does not have the legal right to produce or a revenue interest in such production;

(C) Activities relating to the production of natural resources other than oil, gas, or natural resources from which synthetic oil and gas can be extracted; or

(D) Production of geothermal steam.

(17) Possible reserves. Possible reserves are those additional reserves that are less certain to be recovered than probable reserves.

(i) When deterministic methods are used, the total quantities ultimately recovered from a project have a low probability of exceeding proved plus probable plus possible reserves. When probabilistic methods are used, there should be at least a 10% probability that the total quantities ultimately recovered will equal or exceed the proved plus probable plus possible reserves estimates.

(ii) Possible reserves may be assigned to areas of a reservoir adjacent to probable reserves where data control and interpretations of available data are progressively less certain. Frequently, this will be in areas where geoscience and engineering data are unable to define clearly the area and vertical limits of commercial production from the reservoir by a defined project.

(iii) Possible reserves also include incremental quantities associated with a greater percentage recovery of the hydrocarbons in place than the recovery quantities assumed for probable reserves.

(iv) The proved plus probable and proved plus probable plus possible reserves estimates must be based on reasonable alternative technical and commercial interpretations within the reservoir or subject project that are clearly documented, including comparisons to results in successful similar projects.

(v) Possible reserves may be assigned where geoscience and engineering data identify directly adjacent portions of a reservoir within the same accumulation that may be separated from proved areas by faults with displacement less than formation thickness or other geological discontinuities and that have not been penetrated by a wellbore, and the registrant believes that such adjacent portions are in communication with the known (proved) reservoir. Possible reserves may be assigned to areas that are structurally higher or lower than the proved area if these areas are in communication with the proved reservoir.

(vi) Pursuant to paragraph (a)(22)(iii) of this section, where direct observation has defined a highest known oil (HKO) elevation and the potential exists for an associated gas cap, proved oil reserves should be assigned in the structurally higher portions of the reservoir above the HKO only if the higher contact can be established with reasonable certainty through reliable technology. Portions of the reservoir that do not meet this reasonable certainty criterion may be assigned as probable and possible oil or gas based on reservoir fluid properties and pressure gradient interpretations.

***66** (18) Probable reserves. Probable reserves are those additional reserves that are less certain to be recovered than proved reserves but which, together with proved reserves, are as likely as not to be recovered.

(i) When deterministic methods are used, it is as likely as not that actual remaining quantities recovered will exceed the sum of estimated proved plus probable reserves. When probabilistic methods are used, there should be at least a 50% probability that the actual quantities recovered will equal or exceed the proved plus probable reserves estimates.

(ii) Probable reserves may be assigned to areas of a reservoir adjacent to proved reserves where data control or interpretations of available data are less certain, even if the interpreted reservoir continuity of structure or productivity does not meet the reasonable certainty criterion. Probable reserves may be assigned to areas that are structurally higher than the proved area if these areas are in communication with the proved reservoir.

(iii) Probable reserves estimates also include potential incremental quantities associated with a greater percentage recovery of the hydrocarbons in place than assumed for proved reserves.

(iv) See also guidelines in paragraphs (a)(17)(iv) and (a)(17)(vi) of this section.

(19) Probabilistic estimate. The method of estimation of reserves or resources is called probabilistic when the full range of values that could reasonably occur for each unknown parameter (from the geoscience and engineering data) is used to generate a full range of possible outcomes and their associated probabilities of occurrence.

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(22) Proved oil and gas reserves. Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible—from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations— prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.

(i) The area of the reservoir considered as proved includes:

(A) The area identified by drilling and limited by fluid contacts, if any, and

(B) Adjacent undrilled portions of the reservoir that can, with reasonable certainty, be judged to be continuous with it and to contain economically producible oil or gas on the basis of available geoscience and engineering data.

(ii) In the absence of data on fluid contacts, proved quantities in a reservoir are limited by the lowest known hydrocarbons (LKH) as seen in a well penetration unless geoscience, engineering, or performance data and reliable technology establishes a lower contact with reasonable certainty.

***67** (iii) Where direct observation from well penetrations has defined a highest known oil (HKO) elevation and the potential exists for an associated gas cap, proved oil reserves may be assigned in the structurally higher portions of the reservoir only if geoscience, engineering, or performance data and reliable technology establish the higher contact with reasonable certainty.

(iv) Reserves which can be produced economically through application of improved recovery techniques (including, but not limited to, fluid injection) are included in the proved classification when:

(A) Successful testing by a pilot project in an area of the reservoir with properties no more favorable than in the reservoir as a whole, the operation of an installed program in the reservoir or an analogous reservoir, or other evidence using reliable technology establishes the reasonable certainty of the engineering analysis on which the project or program was based; and

(B) The project has been approved for development by all necessary parties and entities, including governmental entities.

(v) Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions.

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(24) Reasonable certainty. If deterministic methods are used, reasonable certainty means a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90% probability that the quantities actually recovered will equal or exceed the estimate. A high degree of confidence exists if the quantity is much more likely to be achieved than not, and, as changes due to increased availability of geoscience (geological, geophysical, and geochemical), engineering, and economic data are made to estimated ultimate recovery (EUR) with time, reasonably certain EUR is much more likely to increase or remain constant than to decrease.

(25) Reliable technology. Reliable technology is a grouping of one or more technologies (including computational methods) that has been field tested and has been demonstrated to provide reasonably certain results with consistency and repeatability in the formation being evaluated or in an analogous formation.

(26) Reserves. Reserves are estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. In addition, there must exist, or there must be a reasonable expectation that there will exist, the legal right to produce or a revenue interest in the production, installed means of delivering oil and gas or related substances to market, and all permits and financing required to implement the project.

***68** Note to paragraph (a)(26): Reserves should not be assigned to adjacent reservoirs isolated by major, potentially sealing, faults until those reservoirs are penetrated and evaluated as economically producible. Reserves should not be assigned to areas that are clearly separated from a known accumulation by a non-productive reservoir (i.e., absence of reservoir, structurally low reservoir, or negative test results). Such areas may contain prospective resources (i.e., potentially recoverable resources from undiscovered accumulations).

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(28) Resources. Resources are quantities of oil and gas estimated to exist in naturally occurring accumulations. A portion of the resources may be estimated to be recoverable, and another portion may be considered to be unrecoverable. Resources include both discovered and undiscovered accumulations.

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(30) Stratigraphic test well. A stratigraphic test well is a drilling effort, geologically directed, to obtain information pertaining to a specific geologic condition. Such wells customarily are drilled without the intent of being completed for hydrocarbon production. The classification also includes tests identified as core tests and all types of expendable holes related to hydrocarbon exploration. Stratigraphic tests are classified as "exploratory type" if not drilled in a known area or "development type" if drilled in a known area.

(31) Undeveloped oil and gas reserves. Undeveloped oil and gas reserves are reserves of any category that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.

(i) Reserves on undrilled acreage shall be limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic producibility at greater distances.

(ii) Undrilled locations can be classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless the specific circumstances, justify a longer time.

(iii) Under no circumstances shall estimates for undeveloped reserves be attributable to any acreage for which an application of fluid injection or other improved recovery technique is contemplated, unless such techniques have been proved effective by actual projects in the same reservoir or an analogous reservoir, as defined in paragraph (a)(2) of this section, or by other evidence using reliable technology establishing reasonable certainty.

*****

(c) ***

(8) For purposes of this paragraph (c), the term "current price" shall mean the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions.

69** **

PART 211—INTERPRETATIONS RELATING TO FINANCIAL REPORTING MATTERS

3. Amend Part 211, subpart A, by adding "Modernization of Oil and Gas Reporting," Release No. FR-78 and the release date of December 31, 2008, to the list of interpretive releases.

PART 229—STANDARD INSTRUCTIONS FOR FILING FORMS UNDER SECURITIES ACT OF 1933, SECURITIES EXCHANGE ACT OF 1934 AND ENERGY POLICY AND CONSERVATION ACT OF 1975—REGULATION S-K

4. The authority citation for part 229 continues to read in part as follows:

Authority:15 U.S.C. 77e, 77f, 77g, 77h, 77j, 77k, 77s, 77z-2, 77z-3, 77aa(25), 77aa(26), 77ddd, 77eee, 77ggg, 77hhh, 77iii, 77jjj, 77nnn, 77sss, 78c, 78i, 78j, 78l, 78m, 78n, 78*o*, 78u-5, 78w, 78ll, 78mm, 80a-8, 80a-9, 80a-20, 80a-29, 80a-30, 80a-31(c), 80a-37, 80a-38(a), 80a-39, 80b-11, and 7201 et seq.; and 18 U.S.C. 1350, unless otherwise noted.

70** **

5. Amend § 229.102 by revising the introductory text of Instruction 3 and Instructions 4, 5 and 8 to read as follows.

§ 229.102 (Item 102) Description of property.

*****

Instructions to Item 102: ***

3. In the case of an extractive enterprise, not involved in oil and gas producing activities, material information shall be given as to production, reserves, locations, development, and the nature of the registrant's interest. If individual properties are of major significance to an industry segment:

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4. A registrant engaged in oil and gas producing activities shall provide the information required by Subpart 1200 of Regulation S-K.

5. In the case of extractive reserves other than oil and gas reserves, estimates other than proven or probable reserves (and any estimated values of such reserves) shall not be disclosed in any document publicly filed with the Commission, unless such information is required to be disclosed in the document by foreign or state law; provided, however, that where such estimates previously have been provided to a person (or any of its affiliates) that is offering to acquire, merge, or consolidate with the registrant, or otherwise to acquire the registrant's securities, such estimates may be included in documents relating to such acquisition.

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8. The attention of certain issuers engaged in oil and gas producing activities is directed to the information called for in Securities Act Industry Guide 4 (referred to in §229.801(d)).

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6. Amend § 229.801 by removing and reserving paragraph (b) and removing the authority citation following the section.

7. Amend § 229.802 by removing and reserving paragraph (b) and removing the authority citation following the section.

8. Add Subpart 229.1200 to read as follows:

Subpart 229.1200—Disclosure by Registrants Engaged in Oil and Gas Producing Activities

Sec.

Subpart 229.1200—Disclosure by Registrants Engaged in Oil and Gas Producing Activities

§ 229.1201 (Item 1201) General instructions to oil and gas industry-specific disclosures.

(a) If oil and gas producing activities are material to the registrant's or its subsidiaries' business operations or financial position, the disclosure specified in this Subpart 229.1200 should be included under appropriate captions (with cross references, where applicable, to related information disclosed in financial statements). However, limited partnerships and joint ventures that conduct, operate, manage, or report upon oil and gas drilling or income programs, that acquire properties either for drilling and production, or for production of oil, gas, or geothermal steam or water, need not include such disclosure.

***71** (b) To the extent that Items 1202 through 1208 (§§ 229.1202 — 229.1208) call for disclosures in tabular format, as specified in the particular Item, a registrant may modify such format for ease of presentation, to add information or to combine two or more required tables.

(c) The definitions in Rule 4—10(a) of Regulation S-X (17 CFR 210.4-10(a)) shall apply for purposes of this Subpart 229.1200.

(d) For purposes of this Subpart 229.1200, the term by geographic area means, as appropriate for meaningful disclosure in the circumstances:

(1) By individual country;

(2) By groups of countries within a continent; or

(3) By continent.

§ 229.1202 (Item 1202) Disclosure of reserves.

(a) Summary of oil and gas reserves at fiscal year end. (1) Provide the information specified in paragraph (a)(2) of this Item in tabular format as provided below:

Summary of Oil and Gas Reserves as of Fiscal-Year End Based on Average Fiscal-Year Prices

	Reserves				
	Oil	Natural Gas	Synthetic Oil	Synthetic Gas	Product A
Reserves category	**(mbbls)**	**(mmcf)**	**(mbbls)**	**(mmcf)**	**(measure)**
PROVED					
Developed					
Continent A					
Continent B					
Country A					
Country B					
Other Countries in Continent B					
Undeveloped					
Continent A					
Continent B					
Country A					
Country B					
Other Countries in Continent B					
TOTAL PROVED					
PROBABLE					
Developed					
Undeveloped					
POSSIBLE					

Developed
Undeveloped

***72** (2) Disclose, in the aggregate and by geographic area and for each country containing 15% or more of the registrant's proved reserves, expressed on an oil-equivalent-barrels basis, reserves estimated using prices and costs under existing economic conditions, for the product types listed in paragraph (a)(4) of this Item, in the following categories:

(i) Proved developed reserves;

(ii) Proved undeveloped reserves;

(iii) Total proved reserves;

(iv) Probable developed reserves (optional);

(v) Probable undeveloped reserves (optional);

(vi) Possible developed reserves (optional); and

(vii) Possible undeveloped reserves (optional).

Instruction 1 to paragraph (a)(2): Disclose updated reserves tables as of the close of each fiscal year.

Instruction 2 to paragraph (a)(2): The registrant is permitted, but not required, to disclose probable or possible reserves pursuant to paragraphs (a)(2)(iv) through (a)(2)(vii) of this Item.

Instruction 3 to paragraph (a)(2): If the registrant discloses amounts of a product in barrels of oil equivalent, disclose the basis for such equivalency.

Instruction 4 to paragraph (a)(2): A registrant need not provide disclosure of the reserves in a country containing 15% or more of the registrant's proved reserves if that country's government prohibits disclosure of reserves in that country. In addition, a registrant need not provide disclosure of the reserves in a country containing 15% or more of the registrant's proved reserves if that country's government prohibits disclosure in a particular field and disclosure of reserves in that country would have the effect of disclosing reserves in particular fields.

(3) Reported total reserves shall be simple arithmetic sums of all estimates for individual properties or fields within each reserves category. When probabilistic methods are used, reserves should not be aggregated probabilistically beyond the field or property level; instead, they should be aggregated by simple arithmetic summation.

(4) Disclose separately material reserves of the following product types:

(i) Oil;

(ii) Natural gas;

(iii) Synthetic oil;

(iv) Synthetic gas; and

(v) Sales products of other non-renewable natural resources that are intended to be upgraded into synthetic oil and gas.

(5) If the registrant discloses probable or possible reserves, discuss the uncertainty related to such reserves estimates.

(6) If the registrant has not previously disclosed reserves estimates in a filing with the Commission or is disclosing material additions to its reserves estimates, the registrant shall provide a general discussion of the technologies used to establish the appropriate level of certainty for reserves estimates from material properties included in the total reserves disclosed. The particular properties do not need to be identified.

(7) Preparation of reserves estimates or reserves audit. Disclose and describe the internal controls the registrant uses in its reserves estimation effort. In addition, disclose the qualifications of the technical person primarily responsible for overseeing the preparation of the reserves estimates and, if the registrant represents that a third party conducted a reserves audit, disclose the qualifications of the technical person primarily responsible for overseeing such reserves audit.

***73** (8) Third party reports. If the registrant represents that a third party prepared, or conducted a reserves audit of, the registrant's reserves estimates, or any estimated valuation thereof, or conducted a process review, the registrant shall file a report of the third party as an exhibit to the relevant registration statement or other Commission filing. If the report relates to the preparation of, or a reserves audit of, the registrant's reserves estimates, it must include the following disclosure, if applicable to the type of filing:

(i) The purpose for which the report was prepared and for whom it was prepared;

(ii) The effective date of the report and the date on which the report was completed;

(iii) The proportion of the registrant's total reserves covered by the report and the geographic area in which the covered reserves are located;

(iv) The assumptions, data, methods, and procedures used, including the percentage of the registrant's total reserves reviewed in connection with the preparation of the report, and a statement that such assumptions, data, methods, and procedures are appropriate for the purpose served by the report;

(v) A discussion of primary economic assumptions;

(vi) A discussion of the possible effects of regulation on the ability of the registrant to recover the estimated reserves;

(vii) A discussion regarding the inherent uncertainties of reserves estimates;

(viii) A statement that the third party has used all methods and procedures as it considered necessary under the circumstances to prepare the report;

(ix) A brief summary of the third party's conclusions with respect to the reserves estimates; and

(x) The signature of the third party.

(9) For purposes of this Item 1202, the term reserves audit means the process of reviewing certain of the pertinent facts interpreted and assumptions underlying a reserves estimate prepared by another party and the rendering of an opinion about the appropriateness of the methodologies employed, the adequacy and quality of the data relied upon, the depth

and thoroughness of the reserves estimation process, the classification of reserves appropriate to the relevant definitions used, and the reasonableness of the estimated reserves quantities.

(b) Reserves sensitivity analysis (optional). (1) The registrant may, but is not required to, provide the information specified in paragraph (b)(2) of this Item in tabular format as provided below:

Sensitivity of Reserves to Prices By Principal Product Type and Price Scenario

Price Case	Proved Reserves					Probable Reserves					Possible Reserves				
	Oil	Gas	Syn. Oil	Syn. Gas	Product A	Oil	Gas	Syn. Oil	Syn. Gas	Product A	Oil	Gas	Syn. Oil	Syn Gas	Product A
	mbbls	mmcf	mbbls	mmcf	measure	mbbls	mmcf	mbbls	mmcf	measure	mbbls	mmcf	mbbls	mmcf	measure
Scenario 1															
Scenario 2															

*74 (2) The registrant may, but is not required to, disclose, in the aggregate, an estimate of reserves estimated for each product type based on different price and cost criteria, such as a range of prices and costs that may reasonably be achieved, including standardized futures prices or management's own forecasts.

(3) If the registrant provides disclosure under this paragraph (b), disclose the price and cost schedules and assumptions on which the disclosed values are based.

Instruction to Item 1202: Estimates of oil or gas resources other than reserves, and any estimated values of such resources, shall not be disclosed in any document publicly filed with the Commission, unless such information is required to be disclosed in the document by foreign or state law; provided, however, that where such estimates previously have been provided to a person (or any of its affiliates) that is offering to acquire, merge, or consolidate with the registrant or otherwise to acquire the registrant's securities, such estimate may be included in documents related to such acquisition.

§ 229.1203 (Item 1203) Proved undeveloped reserves.

(a) Disclose the total quantity of proved undeveloped reserves at year end.

(b) Disclose material changes in proved undeveloped reserves that occurred during the year, including proved undeveloped reserves converted into proved developed reserves.

(c) Discuss investments and progress made during the year to convert proved undeveloped reserves to proved developed reserves, including, but not limited to, capital expenditures.

(d) Explain the reasons why material amounts of proved undeveloped reserves in individual fields or countries remain undeveloped for five years or more after disclosure as proved undeveloped reserves.

§ 229.1204 (Item 1204) Oil and gas production, production prices and production costs.

(a) For each of the last three fiscal years disclose production, by final product sold, of oil, gas, and other products. Disclosure shall be made by geographical area and for each country and field that contains 15% or more of the registrant's total proved reserves expressed on an oil-equivalent-barrels basis unless prohibited by the country in which the reserves are located.

(b) For each of the last three fiscal years disclose, by geographical area:

(1) The average sales price (including transfers) per unit of oil, gas and other products produced; and

(2) The average production cost, not including ad valorem and severance taxes, per unit of production.

Instruction 1 to Item 1204: Generally, net production should include only production that is owned by the registrant and produced to its interest, less royalties and production due others. However, in special situations (e.g., foreign production) net production before any royalties may be provided, if more appropriate. If "net before royalty" production figures are furnished, the change from the usage of "net production" should be noted.

***75** Instruction 2 to Item 1204: Production of natural gas should include only marketable production of natural gas on an "as sold" basis. Production will include dry, residue, and wet gas, depending on whether liquids have been extracted before the registrant transfers title. Flared gas, injected gas, and gas consumed in operations should be omitted. Recovered gas-lift gas and reproduced gas should not be included until sold. Synthetic gas, when marketed as such, should be included in natural gas sales.

Instruction 3 to Item 1204: If any product, such as bitumen, is sold or custody is transferred prior to conversion to synthetic oil or gas, the product's production, transfer prices, and production costs should be disclosed separately from all other products.

Instruction 4 to Item 1204: The transfer price of oil and gas (natural and synthetic) produced should be determined in accordance with SFAS 69.

Instruction 5 to Item 1204: The average production cost, not including ad valorem and severance taxes, per unit of production should be computed using production costs disclosed pursuant to SFAS 69. Units of production should be expressed in common units of production with oil, gas, and other products converted to a common unit of measure on the basis used in computing amortization.

§ 229.1205 (Item 1205) Drilling and other exploratory and development activities.

(a) For each of the last three fiscal years, by geographical area, disclose:

(1) The number of net productive and dry exploratory wells drilled; and

(2) The number of net productive and dry development wells drilled.

(b) Definitions. For purposes of this Item 1205, the following terms shall be defined as follows:

(1) A dry well is an exploratory, development, or extension well that proves to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.

(2) A productive well is an exploratory, development, or extension well that is not a dry well.

(3) Completion refers to installation of permanent equipment for production of oil or gas, or, in the case of a dry well, to reporting to the appropriate authority that the well has been abandoned.

(4) The number of wells drilled refers to the number of wells completed at any time during the fiscal year, regardless of when drilling was initiated.

(c) Disclose, by geographic area, for each of the last three years, any other exploratory or development activities conducted, including implementation of mining methods for purposes of oil and gas producing activities.

§ 229.1206 (Item 1206) Present activities.

(a) Disclose, by geographical area, the registrant's present activities, such as the number of wells in the process of being drilled (including wells temporarily suspended), waterfloods in process of being installed, pressure maintenance operations, and any other related activities of material importance.

***76** (b) Provide the description of present activities as of a date at the end of the most recent fiscal year or as close to the date that the registrant files the document as reasonably possible.

(c) Include only those wells in the process of being drilled at the "as of" date and express them in terms of both gross and net wells.

(d) Do not include wells that the registrant plans to drill, but has not commenced drilling unless there are factors that make such information material.

§ 229.1207 (Item 1207) Delivery commitments.

(a) If the registrant is committed to provide a fixed and determinable quantity of oil or gas in the near future under existing contracts or agreements, disclose material information concerning the estimated availability of oil and gas from any principal sources, including the following:

(1) The principal sources of oil and gas that the registrant will rely upon and the total amounts that the registrant expects to receive from each principal source and from all sources combined;

(2) The total quantities of oil and gas that are subject to delivery commitments; and

(3) The steps that the registrant has taken to ensure that available reserves and supplies are sufficient to meet such commitments for the next one to three years.

(b) Disclose the information required by this Item:

(1) In a form understandable to investors; and

(2) Based upon the facts and circumstances of the particular situation, including, but not limited to:

(i) Disclosure by geographic area;

(ii) Significant supplies dedicated or contracted to the registrant;

(iii) Any significant reserves or supplies subject to priorities or curtailments which may affect quantities delivered to certain classes of customers, such as customers receiving services under low priority and interruptible contracts;

(iv) Any priority allocations or price limitations imposed by Federal or State regulatory agencies, as well as other factors beyond the registrant's control that may affect the registrant's ability to meet its contractual obligations (the registrant need not provide detailed discussions of price regulation);

(v) Any other factors beyond the registrant's control, such as other parties having control over drilling new wells, competition for the acquisition of reserves and supplies, and the availability of foreign reserves and supplies, which may affect the registrant's ability to acquire additional reserves and supplies or to maintain or increase the availability of reserves and supplies; and

(vi) Any impact on the registrant's earnings and financing needs resulting from its inability to meet short-term or long-term contractual obligations. (See Items 303 and 1209 of Regulation S-K (§§ 229.303 and 229.1209).)

(c) If the registrant has been unable to meet any significant delivery commitments in the last three years, describe the circumstances concerning such events and their impact on the registrant.

*77 (d) For purposes of this Item, available reserves are estimates of the amounts of oil and gas which the registrant can produce from current proved developed reserves using presently installed equipment under existing economic and operating conditions and an estimate of amounts that others can deliver to the registrant under long-term contracts or agreements on a per-day, per-month, or per-year basis.

§ 229.1208 (Item 1208) Oil and gas properties, wells, operations, and acreage.

(a) Disclose, as of a reasonably current date or as of the end of the fiscal year, the total gross and net productive wells, expressed separately for oil and gas (including synthetic oil and gas produced through wells) and the total gross and net developed acreage (i.e., acreage assignable to productive wells) by geographic area.

(b) Disclose, as of a reasonably current date or as of the end of the fiscal year, the amount of undeveloped acreage, both leases and concessions, if any, expressed in both gross and net acres by geographic area, together with an indication of acreage concentrations, and, if material, the minimum remaining terms of leases and concessions.

(c) Definitions. For purposes of this Item 1208, the following terms shall be defined as indicated:

(1) A gross well or acre is a well or acre in which the registrant owns a working interest. The number of gross wells is the total number of wells in which the registrant owns a working interest. Count one or more completions in the same bore hole as one well. In a footnote, disclose the number of wells with multiple completions. If one of the multiple completions in a well is an oil completion, classify the well as an oil well.

(2) A net well or acre is deemed to exist when the sum of fractional ownership working interests in gross wells or acres equals one. The number of net wells or acres is the sum of the fractional working interests owned in gross wells or acres expressed as whole numbers and fractions of whole numbers.

(3) Productive wells include producing wells and wells mechanically capable of production.

(4) Undeveloped acreage encompasses those leased acres on which wells have not been drilled or completed to a point that would permit the production of economic quantities of oil or gas regardless of whether such acreage contains proved reserves. Do not confuse undeveloped acreage with undrilled acreage held by production under the terms of the lease.

PART 249—FORMS, SECURITIES EXCHANGE ACT OF 1934

9. The authority citation for part 249 continues to read in part as follows:

Authority:15 U.S.C. 78a et seq. and 7201; and 18 U.S.C. 1350, unless otherwise noted.

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10. Amend Form 20-F (referenced in §249.220f) by:

***78** a. Revising "Instruction to Item 4" and the introductory text and paragraph (b) of "Instructions to Item 4.D"; and

b. Removing paragraph (c) of "Instructions to Item 4.D" and "Appendix A to Item 4.D—Oil and Gas."

The revisions read as follows:

[Note: The text of Form 20-F does not, and this amendment will not, appear in the Code of Federal Regulations.]

FORM 20-F

*****

Item 4. Information on the Company

*****

Instructions to Item 4:

1. Furnish the information specified in any industry guide listed in Subpart 229.800 of Regulation S-K (§229.801 et seq. of this chapter) that applies to you.

2. If oil and gas operations are material to you or your subsidiaries' business operations or financial position, provide the information specified in Subpart 1200 of Regulation S-K (§229.1200 et seq. of this chapter).

*****

Instruction to Item 4.D: In the case of an extractive enterprise, other than an oil and gas producing activity:

*****

(b) In documents that you file publicly with the Commission, do not disclose estimates of reserves unless the reserves are proven or probable and do not give estimated values of those reserves, unless foreign law requires you to disclose the information. If these types of estimates have already been provided to any person that is offering to acquire you, however, you may include the estimates in documents relating to the acquisition.

*****

By the Commission.

Florence E. Harmon
Acting Secretary

Footnotes

The burden estimates for Form 10-K assume that the requirements are satisfied by either including information directly in the annual reports or incorporating the information by reference from the Rule 14a-3(b) annual report to security holders.

1 17 CFR 210.4-10.

2 17 CFR 210.

3 17 CFR 229.102, 17 CFR 229.801, and 17 CFR 229.802.

4 17 CFR 229.

5 Release No. 33-8935 (June 27, 2008) [73 FR 39181].

6 Release No. 33-8870 (Dec. 12, 2007) [72 FR 71610].

7 17 CFR 210.4-10. See Release No. 33-6233 (Sept. 25, 1980) [45 FR 63660] (adopting amendments to Regulation S-X, including Rule 4-10). The precursor to Rule 4-10 was Rule 3-18 of Regulation S-X, which was adopted in 1978. See Accounting Series Release No. 253 (Aug. 31, 1978) [43 FR 40688]. See also Accounting Series Release No. 257 (Dec. 19, 1978) [43 FR 60404] (further amending Rule 3-18 of Regulation S-X and revising the definition of proved reserves).

8 Item 102 of Regulation S-K [17 CFR 229.102]. In 1982, the Commission adopted Item 102 of Regulation S-K. Item 102 contains the disclosure requirements previously located in Item 2 of Regulation S-K. See Release No. 33-6383 (March 16, 1982) [47 FR 11380]. The Commission also "recast … the disclosure requirements for oil and gas operations, formerly contained in Item 2(b) of Regulation S-K, as an industry guide." See Release No. 33-6384 (Mar. 16, 1982) [47 FR 11476].

9 The disclosure requirements were introduced pursuant to a directive in the Energy Policy and Conservation Act of 1975 (the "EPCA"). The EPCA directed the Commission to "take such steps as may be necessary to assure the development and observance of accounting practices to be followed in the preparation of accounts by persons engaged, in whole or in part, in the production of crude oil or natural gas in the United States." See 42 U.S.C. 6201-6422.

10 See, for example, Daniel Yergin and David Hobbs: "The Search for Reasonable Certainty in Reserves Disclosure," Oil and Gas Journal (July 18, 2005).

11 See, for example, Greg Courturier, "Standard & Poor's Urges SEC to Change Disclosure Rules," International Oil Daily (Dec. 3, 2007); Steve Levine, "Tracking the Numbers: Oil Firms Want SEC to Loosen Reserves Rules," Wall Street Journal Online (Feb. 7, 2006); Christopher Hope, "Oil Majors Back Attack on SEC Rules," The Daily Telegraph (London) (Feb. 24, 2005); Barrie McKenna, "Rules undervalue reserves report says: Volumes buried in Canada's oil sands not counted by SEC's measure," The Globe & Mail (Canada) (Feb. 24, 2005); and "Deloitte Calls on Regulators to Update Rules for Oil and Gas Reserves Reporting," Business Wire Inc. (Feb. 9, 2005).

12 The public comments we received are available for inspection in the Commission's Public Reference Room at 100 F St. NE , Washington, DC 20549 in File No. S7-29-07. They are also available on-line at http:// www.sec.gov/comments/s7-29-07/s72907.shtml.

13 See letters from American Association of Petroleum Geologists ("AAPG"), American Clean Skies Foundation ("American Clean Skies"), American Petroleum Institute ("API"), AngloGold Ashanti Ltd. ("AngloGold"), Apache Corporation ("Apache"), BHP Billiton Petroleum ("BHP"), BP Plc. ("BP"), Brookwood Petroleum Advisors, Ltd. ("Brookwood"), Canadian Association of Petroleum Producers ("CAPP"), Canadian Natural Resources Ltd. ("Canadian Natural"), Center for Audit Quality ("CAQ"), Center for Corporate Policy ("CCP"), CFA Institute Centre for Financial Market Integrity ("CFA"), Chesapeake Energy Corporation ("Chesapeake"), Chevron Corporation ("Chevron"), Coeur d'Alene Mines Corporation ("Coeur"), Cunningham, Peter ("Cunningham"), Davis, Polk & Wardwell ("Davis Polk"), Deloitte & Touche ("Deloitte"), Devon Energy Corporation ("Devon"), EnCana Corporation ("EnCana"), Energen Corporation ("Energen"), Energy Information Administration (of DOE) ("EIA"), Eni S.p.A. ("Eni"), Equitable Resources, Inc. ("Equitable"), Ernst & Young ("E&Y"), Evolution Petroleum Corporation ("Evolution"), ExxonMobil Corporation ("ExxonMobil"), Federal Energy Regulatory Commission ("FERC"), Graff Consulting Group LLC ("Graff Consulting"), Grant Thornton ("Grant Thornton"), Imperial Oil Ltd. ("Imperial"), Independent Petroleum Association of America ("IPAA"), KPMG ("KPMG"), Luscher, Brian ("Luscher"), Magoto, Joseph ("Magoto"), McMoRan Exploration Co. ("McMoRan"), Newfield Exploration Company ("Newfield"), Nexen, Inc. ("Nexen"), Peabody Energy Corporation ("Peabody"), Petro-Canada ("Petro-Canada"), Petroleo Brasileiro S.A. ("Petrobras"), Petroleos Mexicanos ("PEMEX"), PRA International Ltd. ("PRA"), PriceWaterhouseCoopers ("PWC"), Questar Market Resources ("Questar"), RepsolYPF, S.A. ("Repsol"), Ross Petroleum Ltd. ("Ross"), Ryder Scott Company, L.P. ("Ryder Scott"), Sasol Ltd. ("Sasol"), Senator Robert Menendez,

Senator Russell D. Feingold, and Senator Bernard Sanders, U.S. Senate ("Three Senators"), Shearman & Sterling ("Shearman & Sterling"), Shell International B.V. ("Shell"), Society of Exploration Geophysicists ("SEG"), Society of Petroleum Engineers ("SPE"), Society of Petroleum Evaluation Engineers ("SPEE"), Southwestern Energy Production Company ("Southwestern"), Standard Advantage ("Standard Advantage"), StatoilHydro ("StatoilHydro"), Swift Energy Company ("Swift"), Talisman Energy Inc. ("Talisman"), Total, S.A. ("Total"), van Wyk, Mike ("van Wyk"), Wagner, Robert ("Wagner"), Zakaib, Geoff ("Zakaib").

14 17 CFR 210.4-10(a).

15 The Petroleum Resources Management System is a widely accepted standard for the management of petroleum resources developed by several industry organizations. See Society of Petroleum Engineers, the World Petroleum Council, American Association of Petroleum Geologists, and the Society of Petroleum Evaluation Engineers, Petroleum Resources Management System, SPE/WPC/AAPG/SPEE (2007).

16 See Rule 4-10(a)(22)(v) [17 CFR 210.4-10(a)(22)(v)].

17 See letters from AngloGold, Apache, API, BHP, BP, Canadian Natural, CAPP, Chesapeake, Chevron, Devon, EIA, EnCana, Equitable, Evolution, ExxonMobil, Newfield, Nexen, Petrobras, Petro-Canada, PWC, Questar, Repsol, Ryder Scott, Sasol, Shell, Southwestern, SPE, Total, and Wagner.

18 See letters from AngloGold, BHP, Equitable, Ryder Scott, and SPE.

19 See letters from Apache, API, BHP, BP, Canadian Natural, CAPP, Chesapeake, EIA, EnCana, Equitable, Evolution, ExxonMobil, Imperial, IPAA, Newfield, Petrobras, Petro-Canada, Repsol, Ryder Scott, SPE, Total, and Wagner.

20 See letters from Apache, Canadian Natural, Devon, EnCana, Evolution, IPAA, Petro-Canada, Repsol, and Ryder Scott.

21 See letters from BHP, Canadian Natural, CAPP, Deloitte, Devon, IPAA, Newfield, Petro-Canada, Total, and Wagner.

22 See letters from Apache, BP, Chesapeake, Chevron, Devon, Repsol, and Shell.

23 See letters from Chesapeake, Devon, and Shell.

24 See letters from Apache, Newfield, and Repsol.

25 See letters from Canadian Natural, CAPP, EnCana, Nexen, Petro-Canada, and Repsol.

26 See letter from Newfield.

27 See letters from Apache and Shell.

28 See letter from CFA.

29 See letter from CFA.

30 See new Rule 4-10(a)(22)(v) of Regulation S-X [17 CFR 210.4-10(a)(22)(v)].

31 Currently, companies use a single-day, year-end price to determine the quantity of its proved reserves. From an accounting perspective, the quantity of those reserves, while not included on the balance sheet, is used to determine the depreciation, depletion and amortization of certain capitalized costs included on the balance sheet. If the final rule retained a single-day, year-end price for determining reserves for accounting purposes (i.e., for determining depreciation, depletion and amortization), then companies would effectively be required to calculate reserves twice, using two different pricing assumptions—once for disclosure purposes and once for accounting purposes. Similarly, under the full cost rules, the full cost ceiling test, as described in Section III of this release, would have similar implications.

32 See letters from Apache, API, Audit Quality, BHP, BP, Canadian Natural, CAPP, CFA, Chesapeake, Chevron, Deloitte, Devon, E&Y, EnCana, Energen, Eni, Equitable, Evolution, ExxonMobil, Grant Thornton, Imperial, KPMG, McMoRan, Newfield, Nexen, PEMEX, Petrobras, Petro-Canada, PWC, Questar, Repsol, Ross, Ryder Scott, Sasol, Shell, Southwestern, SPEE, StatoilHydro, Swift, Talisman, Total, and Wagner.

33 See proposed Rule 4-10.

34 See letters from Audit Quality, BHP, Canadian Natural, CAPP, Chesapeake, Deloitte, Devon, Evolution, ExxonMobil, Imperial, Newfield, Nexen, Petrobras, Petro-Canada, PWC, Questar, Repsol, Ryder Scott, Shell, Swift, Talisman, Total, and Wagner.

35 See letters from BP, CFA, Devon, Eni, Nexen, Repsol, and Wagner.

36 See letters from Apache, Canadian Natural, CAPP, Questar, StatoilHydro, and Wagner.

37 See letters from Canadian Natural, CAPP, ExxonMobil, Shell, Swift, and Wagner.

38 See letters from Apache, Audit Quality, BHP, Canadian Natural, CAPP, Chevron, Deloitte, Devon, Eni, Equitable, Evolution, ExxonMobil, Imperial, McMoRan, Newfield, Nexen, Petrobras, Questar, Petro-Canada, PWC, Ryder Scott, Shell, Swift, Total, and Wagner.

39 See letters from CAPP, CFA, and Devon.

40 See letters from Apache, Chesapeake, Eni, Equitable, and Imperial.

41 See letters from CAPP, Devon, Eni, ExxonMobil, Imperial, and Wagner.
42 See letters from Apache, Audit Quality, CAPP, CFA, Deloitte, E&Y, Energen, Eni, ExxonMobil, Imperial, KPMG, Newfield, PWC, Repsol, and Total.
43 See letters from API, CAPP, and Shell.
44 See letters from API, Canadian Natural, EnCana, ExxonMobil, and Total.
45 See letters from Apache, BHP, Canadian Natural, CAPP, CFA, Deloitte, McMoRan, Newfield, Nexen, Questar, Southwestern, Talisman, and Total.
46 See letters from CFA, Deloitte, Grant Thornton, and McMoRan.
47 See letters from CFA and Deloitte.
48 See letters from CFA, Grant Thornton, and McMoRan.
49 See letter from Deloitte.
50 See letters from Deloitte and McMoRan.
51 See letter from McMoRan.
52 See letter from CFA.
53 See letters from ExxonMobil and Wagner.
54 See letters from EnCana, Evolution, ExxonMobil, Newfield, Ryder Scott, and Total.
55 See letters from Ryder Scott and Total.
56 See letters from SPE and Total.
57 See letter from SPE.
58 See letters from Evolution, Ryder Scott, and Wagner.
59 See letters from Apache, API, BP, Canadian Natural, CAPP, EnCana, Eni, ExxonMobil, PEMEX, Petro-Canada, Repsol, Ryder Scott, Sasol, Shell, Total, van Wyk, and Wagner.
60 See letters from Apache, API, BP, Canadian Natural, CAPP, Devon, Eni, ExxonMobil, PEMEX, Petro-Canada, Repsol, Ryder Scott, Sasol, Shell, Total, van Wyk, and Wagner.
61 See letters from Canadian Natural, CAPP, Eni, Nexen, and Petro-Canada.
62 See letters from API, Canadian Natural, CAPP, Devon, Evolution, PEMEX, Petrobras, Ryder Scott, Sasol, Shell, Total, and Wagner.
63 See letters from Canadian Natural, CAPP, Nexen, Petrobras, Petro-Canada, Ryder Scott, Sasol, and Wagner.
64 See letters from API and Shell.
65 See letter from Shell.
66 See letters from API, Devon, Eni, Evolution, ExxonMobil, PEMEX, Petrobras, PWC, Repsol, and Total.
67 See letters from Devon and ExxonMobil.
68 See Rule 4-10(a)(1)(ii)(D) [17 CFR 210.4-10(a)(1)(ii)(D)].
69 Commenters noted that unconventional resources currently represent 45% of natural gas production in the U.S. See letters from American Clean Skies and IPAA.
70 See Rule 4-10(a)(16) [17 CFR 210.4-10(a)(16)].
71 See letters from American Clean Skies, Apache, API, Canadian Natural, CAPP, CAQ, CFA, Davis Polk, Devon, E&Y, EnCana, ExxonMobil, FERC, Imperial, IPAA, KPMG, Nexen, Petrobras, Petro-Canada, PRA, PWC, Repsol, Ryder Scott, Sasol, Shell, SPE, StatoilHydro, Talisman, Total, and Wagner.
72 See letters from API, CAPP, CAQ, ExxonMobil, Imperial, PWC, Repsol, Ryder Scott, Total, and Wagner.
73 See letters from API, CAQ, E&Y, ExxonMobil, Imperial, Petro-Canada, PWC, and Total.
74 See letters from Imperial, IPAA, Repsol, and Total.
75 See Rule 4-10(a)(16) [17 CFR 210.4-10(a)(16)].
76 A hydrocarbon product is saleable if it is in a state in which it can be sold even if there is no ready market for that hydrocarbon product in the geographic location of the project. The absence of a market does not preclude the activity from being considered an oil and gas producing activity. However, in order to claim reserves for that hydrocarbon product from a particular location, there must be a market, or a reasonable expectation of a market, for that product.
77 See letters from CAPP, ExxonMobil, Ryder Scott, Sasol, Shell, StatoilHydro, and Wagner.
78 See letters from CAPP, ExxonMobil, Shell, StatoilHydro, and Wagner.
79 See letter from ExxonMobil.
80 See letters from Apache, Nexen, Petrobras, and Ryder Scott.

81 See letters from Apache, CAQ, and Nexen.
82 See letter from Nexen.
83 See Rule 4-10(a)(22) [17 CFR 210.4-10(a)(22)].
84 See letter from SPE.
85 See Rule 4-10(a)(22)(v) [17 CFR 210.4-10(a)(22)(v)].
86 In certain circumstances, a well may not penetrate the area at which the oil makes contact with water. In these cases, the company would not have information on the fluid contact and must use other means to estimate the lower boundary depths for the reservoir in which oil is located.
87 See Rule 4-10(a)(2)(i) [17 CFR 210.4-10(a)(2)(i)].
88 See Rule 4-10(a)(24)(ii) [17 CFR 210.4-10(a)(24)(ii)]. See Section II.G for a more detailed discussion regarding this provision.
89 See letters from EIA, ExxonMobil, and Zakaib.
90 See letters from Apache, EIA, Energen, and SPE.
91 See letter from Evolution.
92 See letters from EnCana, ExxonMobil, Petrobras, and Ryder Scott.
93 Total.
94 See letters from Apache, Devon, Evolution, Petro-Canada, Ryder Scott, Shell, SPE, Total, and Wagner.
95 See letter from Wagner.
96 See letters from AAPG, SPE, and Southwestern.
97 See Rule 4-10(a)(24) [17 CFR 210.4-10(a)(24)].
98 See letter from SPE. We note that with respect to oil and gas reserves, the term "classification" is used to indicate the level of certainty that estimated amounts will be recovered. Thus, although the terms "developed" and "undeveloped" may be considered means in which to generically "classify" reserves, for clarity, we use that term to be consistent with industry usage.
99 See Rules 4-10(a)(6) and (31) [17 CFR 210.4-10(a)(6) and (31)].
100 See letters from SPE and Total.
101 See previous Rule 4-10(a)(4) [17 CFR 210.4-10(a)(4)].
102 See Rule 4-10(a)(6) [17 CFR 210.4-10(a)(6)].
103 As noted later in this section of the release, we are replacing the term "drilling unit" with the term "development spacing area" in the final rules. However, for purposes of discussing the proposal and the existing rules, we continue to use the term "drilling unit" because that is the term used in the proposal and the existing rules.
104 See 17 CFR 210.4-10(a)(4). A drilling unit refers to the spacing between wells required by some local jurisdictions to prevent wasting resources and optimize recovery.
105 See letters from American Clean Skies, Apache, API, Canadian Natural, CAPP, Chesapeake, Devon, Evolution, ExxonMobil, McMoRan, Petro-Canada, Questar, Repsol, Southwestern, Shell, SPE, Total, and Wagner.
106 See letters from Devon, EnCana, and Equitable.
107 See letters from American Clean Skies, Apache, CAPP, Chesapeake, EnCana, ExxonMobil, Luscher, Newfield, Nexen, Petrobras, Petro-Canada, Ryder Scott, Shell, SPE, and Total.
108 See letters from American Clean Skies, CAPP, Chesapeake, EnCana, ExxonMobil, Newfield, Nexen, Petrobras, Petro-Canada, Ryder Scott, Shell, and Total.
109 See letter from SPE.
110 See letters from Devon, Ryder Scott, and Wagner.
111 See Rule 4-10(a)(31) [17 CFR 210.4-10(a)(31)].
112 See Item 1203(d) [17 CFR 229.1203(d)].
113 See Rule 4-10(a)(25)(iii) [17 CFR 210.4-10(a)(25)(iii)].
114 See letter from Total.
115 See letter from SPE.
116 See letter from SPE.
117 These paragraphs would have clarified (1) in a conventional accumulation, offsetting productive units must lie within an area in which economic producibility has been established by reliable technology to be reasonably certain and (2) proved reserves can be claimed in a conventional or continuous accumulation in a given area in which engineering, geoscience, and economic data, including actual drilling statistics in the area, and reliable technology show that, with reasonable certainty, economic producibility exists beyond immediately offsetting drilling units. We do not believe that these statements, based on the terms

"conventional accumulation" and "continuous accumulation" which are no longer being defined continue to serve a helpful purpose. See Section II.J.5 of this release.

118 See letters from AAPG, American Clean Skies, Apache, CFA, Davis Polk, Devon, EnCana, ExxonMobil, Petrobras, Ryder Scott, Sasol, Shell, SPE, Southwestern, and Wagner.

119 However, in the past, the Commission's staff has recognized that flow tests can be impractical in certain areas, such as the Gulf of Mexico, where environmental restrictions effectively prohibit these types of tests. The staff has not objected to disclosure of reserves estimates for these restricted areas using alternative technologies.

120 See letters from Chesapeake, ExxonMobil, Shell, and Total.

121 See letters from AAPG, Apache, EIA, Evolution, Ryder Scott, Shell, SPE, and Wagner.

122 See letters from Davis Polk and Sasol.

123 See letters from API, Devon, Eni, ExxonMobil, PEMEX, Petro-Canada, Questar, Repsol, Ryder Scott, Shell, Southwestern, StatoilHydro, and Total.

124 See letters from API, Devon, Evolution, ExxonMobil, Ryder Scott, StatoilHydro, and Total.

125 See letters from EnCana, Eni, Evolution, Ryder Scott, and Shell.

126 See Item 1202(a)(6) [17 CFR 229.1202(a)(6)].

127 Currently, the Commission's staff requests supplemental data pursuant to Instruction 4 to Item 102 of Regulation S-K [17 CFR 229.102], Rule 418 [17 CFR 230.418], and Rule 12b-4 [17 CFR 240.12b-4]

128 See letters from Southwestern and Wagner.

129 See Item 1202(a)(6) [17 CFR 229.1202(a)(6)].

130 See Rule 4-10(a)(18) [17 CFR 210.4-10(a)(18)].

131 See letters from Devon, EnCana, SPE, and StatoilHydro.

132 See Rule 4-10(a)(17) [17 CFR 210.4-10(a)(17)].

133 See letters from Devon, EnCana, SPE, and StatoilHydro.

134 See letter from Evolution.

135 See letters from API, CAQ, Grant Thornton, and KPMG.

136 See Rule 4-10(a)(26) [17 CFR 210.4-10(a)(26)].

137 See Note to Rule 4-10(a)(26) [17 CFR 210.4-10(a)(26)].

138 See letter from StatoilHydro.

139 See Rules 4-10(a)(5) and (a)(19) [17 CFR 210.4-10(a)(5) and (a)(19)]. These definitions are based on the Canadian Oil and Gas Evaluation Handbook (COGEH). This handbook was developed by the Calgary Chapter of the Society of Petroleum Evaluation Engineers and the Petroleum Society of CIM to establish standards to be used within the Canadian oil and gas industry in evaluating oil and gas reserves and resources.

140 See Rule 4-10(a)(19) [17 CFR 210.4-10(a)(19)].

141 See letter from Shell.

142 See letter from SPE.

143 See Rule 4-10(a)(2) [17 CFR 210.4-10(a)(2)].

144 See Rule 4-10(a)(2) [17 CFR 210.4-10(a)(2)].

145 See Rule 4-10(a)(3) [17 CFR 210.4-10(a)(4)].

146 See Rule 4-10(a)(8) [17 CFR 210.4-10(a)(8)].

147 See Rule 4-10(a)(10) [17 CFR 210.4-10(a)(10)].

148 See Rule 4-10(a)(11) [17 CFR 210-4-10(a)(11)].

149 See Rule 4-10(a)(13) [17 CFR 210.4-10(a)(13)].

150 See Rule 4-10(a)(14) [17 CFR 210.4-10(a)(14)].

151 See Rule 4-10(a)(28) [17 CFR 210.4-10(a)(28)].

152 See letter from SPE.

153 See Rule 4-10(a)(3) [17 CFR 210.4-10(a)(3)].

154 See Section III.B.3.c.

155 See Section III. B.2.a.

156 See letter from SPE.

157 17 CFR 210.4-10(c).

158 While not intended to represent fair value, costs that are written down because they exceed the ceiling limitation are accounted for in the same manner as impairments recognized under accounting generally. That is, once the asset is written down, it becomes the new historical cost basis and cannot be reinstated for subsequent increases in the ceiling. See Rule 4-10(c)(4)(i) of Regulation S-X [17 CFR 210-4-10(c)(4)(i)].

159 The accounting guidance refers to our definition of proved reserves under existing Rule 4-10(a)(2), which currently uses a single-day, year-end price to establish reserves amounts.

160 See Rule 4-10(c)(8) [17 CFR 210.4-10(c)(8)].

161 Exchange Act Industry Guide 2 merely references, and therefore is identical to, Securities Act Industry Guide 2.

162 See revised Instructions 4 and 8 to Item 102 [17 CFR 229.102].

163 See revised Item 801 and 802 [17 CFR 229.801 and 802].

164 See revised Instruction 5 to Item 102 [17 CFR 229.102]. Extractive enterprises include enterprises such as mining companies that extract resources from the ground.

165 See revised Instruction 3 to Item 102 [17 CFR 229.102].

166 17 CFR 230.418.

167 17 CFR 240.12b-4.

168 This paragraph would maintain the existing exclusion in Industry Guide 2 for limited partnerships and joint ventures that conduct, operate, manage, or report upon oil and gas drilling or income programs, that acquire properties either for drilling and production, or for production of oil, gas, or geothermal steam or water.

169 See letters from Apache, CAPP, Devon, ExxonMobil, Imperial, Nexen, Repsol, Shell, and StatoilHydro.

170 See letters from Apache, CAPP, ExxonMobil, Imperial, Nexen, and Repsol.

171 See letters from ExxonMobil, Imperial, and Total.

172 See letters from Apache, API, BHP, Canadian Natural, CAPP, Devon, EnCana, Eni, Newfield, Nexen, Petro-Canada, Shell, StatoilHydro, and Total.

173 See letters from Apache, API, CAPP, Eni, Newfield, Petro-Canada, and Total.

174 See letter from Apache.

175 See letters from Apache, API, Canadian Natural, CAPP, Eni, ExxonMobil, Imperial, and Petro-Canada.

176 See letters from ExxonMobil and Nexen.

177 See letters from AAPG, CFA, Chesapeake, and E&Y.

178 See letter from Shell.

179 17 CFR 229.102.

180 See Item 1201(d) [17 CFR 229.1201(d)].

181 See Item 1204(a) [17 CFR 229.1204(a)].

182 See Item 1202(a)(2) [17 CFR 229.1202(a)(2)].

183 See Instruction 4 to Item 1202(a)(2).

184 See letters from Devon and Petrobras.

185 See letter from Petro-Canada.

186 See letters from Apache and ExxonMobil.

187 See letters from Apache and ExxonMobil.

188 See Item 1202 [17 CFR 229.1202].

189 See Section II.C.2 of this release.

190 See letters from Devon, Evolution, ExxonMobil, Ryder Scott, Shell, SPE, Talisman, and Wagner.

191 See letters from CFA, Chesapeake, Deloitte, EnCana, Evolution, McMoRan, Newfield, Petrobras, Petro-Canada, Questar, Ryder Scott, Sasol, Ryder Scott, Shell, SPE, Three Senators, Wagner, and Zakaib.

192 See letters from CFA, Evolution, Petro-Canada, Ryder Scott, and Wagner.

193 See letter from Evolution.

194 See letter from EnCana.

195 See letters from API, ExxonMobil, Imperial, Repsol, and Total.

196 See letters from API, ExxonMobil, Imperial, and Repsol.

197 See letters from API, ExxonMobil, and Imperial.

198 See letters from Apache, Devon, Energen, Eni, and Southwestern.

199 See letters from Apache, Devon, Eni, and Southwestern.
200 See letters from Devon, Eni, and Southwestern.
201 See letters from Apache and Total.
202 See letter from Eni.
203 See Instruction 5 to Item 102 [17 CFR 229.102].
204 See letters from Davis Polk, Petro-Canada, Shearman & Sterling, SPE, and Zakaib.
205 See letter from Shearman & Sterling.
206 Id.
207 See letter from SPE.
208 See letter from Davis Polk.
209 See letter from Davis Polk.
210 Id.
211 See letters from Devon, ExxonMobil, Shell, and Total.
212 See letters from Canadian Natural, CAPP, CFA, Chesapeake, Deloitte, Devon, Evolution, ExxonMobil, McMoRan, Nexen, Petro-Canada, and Total.
213 See letters from Chesapeake, Deloitte, and McMoRan.
214 See letter from CFA.
215 See letters from Evolution and Total.
216 See letters from Canadian Natural, CAPP, Devon, EnCana, and ExxonMobil.
217 See letters from EnCana and Ryder Scott.
218 See letters from Apache, Petrobras, and Wagner.
219 See Item 303 of Regulation S-K [17 CFR 229.303].
220 See letters from Apache, API, Canadian Natural, CAPP, EnCana, ExxonMobil, Imperial, Petro-Canada, and Total.
221 See letters from Apache, API, CAPP, Chesapeake, Devon, ExxonMobil, Imperial, Repsol, and Shell.
222 See letters from Apache, API, BP, CAPP, Chesapeake, Chevron, Devon, E&Y, EnCana, ExxonMobil, Imperial, Petro-Canada, Repsol, and Southwestern.
223 See letters from BP, Canadian Natural, CAPP, EnCana, Petro-Canada, Ryder Scott, and Talisman.
224 See letters from EnCana and Ryder Scott.
225 See letters from Davis Polk, EIA, Petrobras, and Wagner.
226 See letter from Wagner.
227 See Item 1202 [17 CFR 229.1202].
228 With regard to the objectivity of a technical person, the "person" could be an individual or an entity, as appropriate. However, with regard to the qualifications of a person, the disclosure would relate to the individual who is primarily responsible for the technical aspects of the reserves estimation or audit. Thus, this individual is not necessarily the individual generally overseeing the estimation or audit, but the individual who is primarily responsible for the actual calculations and estimation or audit.
229 See letters from Apache, API, Chevron, Energen, Eni, ExxonMobil, Newfield, Nexen, PEMEX, Petro-Canada, Ryder Scott, Shell, and Total.
230 See letters from Apache, API, ExxonMobil, Newfield, Nexen, PEMEX, Ryder Scott, and Total.
231 See letters from Apache, API, ExxonMobil, Newfield, Nexen, PEMEX, Repsol, and Total.
232 See letters from API, ExxonMobil, PEMEX, and Petro-Canada.
233 See letters from CFA, Devon, EnCana, Southwestern, and Wagner.
234 See Item 1202(a)(7) [17 CFR 229.1202(a)(7)].
235 See letters from API and Deloitte.
236 See letter from Deloitte.
237 See letters from AAPG, API, Chevron, Eni, Petro-Canada, Questar, and SPE.
238 See letters from API, Chevron, Energen, ExxonMobil, Newfield, Nexen, Petrobras, Ryder Scott, Shell, StatoilHydro, and Total.
239 See letters from ExxonMobil, Nexen, Shell, and StatoilHydro.
240 See Item 1202(a)(7) [17 CFR 229.1202(a)(7)].

241 See letters from API, BHP, BP, CFA, CNOOC, Denbury, Devon, Eni, Energy Literacy, ExxonMobil, Imperial, R. Jones, D. McBride, Newfield, Nexen, Petro-Canada, Ross, D. Ryder, Sasol, Shell, Talisman, Total, and W. van de Vijver.
242 See letters from API, Denbury, ExxonMobil, Imperial, Nexen, Shell, and Talisman.
243 See letters from AAPG, API, BP, Devon, ExxonMobil, Imperial, D. McBride, Newfield, D. Ryder, and Sasol.
244 See letters from Evolution and Petro-Canada.
245 See letter from Wagner.
246 See letter from Wagner.
247 See letters from Devon and Ryder Scott.
248 See Item 1202(a)(8) [17 CFR 229.1202(a)(8)].
249 See letters from Evolution and Wagner.
250 See letter from Ryder Scott.
251 See letters from Devon, Ryder Scott, and Talisman.
252 See letter from Talisman.
253 See SPE Reserves Auditing Standards.
254 See letters from Devon, ExxonMobil, Petro-Canada, Ryder Scott, and Shell.
255 See letter from Wagner.
256 See letters from Devon and Petro-Canada.
257 See Item 1202(a)(8) [17 CFR 229.1202(a)(8)].
258 See Item 1204 [17 CFR 229.1204].
259 See letters from API, BP, Canadian Natural, CAPP, Chevron, Eni, Equitable, ExxonMobil, Nexen, Petrobras, Repsol, Shell, and Wagner.
260 See letters from API, ExxonMobil, Petrobras, Ryder Scott, Total, and Wagner.
261 See letters from API, Canadian Natural, CAPP, Chevron, Eni, Equitable, ExxonMobil, Nexen, Petrobras, Southwestern, and Wagner.
262 See letter from Apache.
263 See letters from API, Canadian Natural, Chevron, ExxonMobil, Newfield, Nexen, Petrobras, and Ryder Scott.
264 See letter from Three Senators.
265 See letter from Three Senators.
266 See letters from Chesapeake, Devon, and Newfield.
267 See letters from Chesapeake, Deloitte, Devon, Three Senators, Talisman, and Wagner.
268 See Item 1203 [17 CFR 229.1203].
269 See letter from Apache.
270 See letter from Apache.
271 See letters from Total and ExxonMobil.
272 See letter from ExxonMobil.
273 See letter from ExxonMobil.
274 See letters from Apache, ExxonMobil, and Total.
275 See letter from ExxonMobil.
276 See letters from Apache, API, and Imperial.
277 See letters from Apache and Southwestern.
278 See letter from Total.
279 See Item 1205 [17 CFR 229.1205].
280 See Item 1206 [17 CFR 229.1206].
281 See Item 1207 [17 CFR 229.1207].
282 See letters from API, Chevron, ExxonMobil, Imperial, Shell, and Total.
283 See letters from Apache, ExxonMobil, Shell, and Total.
284 See letters from Apache, ExxonMobil, and Petro-Canada.
285 See letters from API, BP, Chevron, ExxonMobil, Imperial, StatoilHydro, and Total.
286 See letters from API and Imperial.
287 See Item 1208 [17 CFR 229.1208].

288 See Item 303 of Regulation S-K [17 CFR 229.303].
289 See letters from Chevron, ExxonMobil, Petrobras, and Shell.
290 See letter from Repsol.
291 See letter from Total.
292 See Appendix A to Item 4.D—Oil and Gas of Form 20-F [17 CFR 249.220f].
293 See letters from CAQ, Deloitte, ExxonMobil, KPMG, PWC, and Shell.
294 See letter from ExxonMobil.
295 See letter from ExxonMobil.
296 See letter from Total.
297 See letter from Total.
298 See letter from Ross.
299 See letters from Shell and Total.
300 See letter from ExxonMobil.
301 Id.
302 See letter from Deloitte.
303 See letters from CAQ, CFA, Eni, Grant Thornton, KPMG, and PWC.
304 See letters from CAQ, Canadian Natural, CAPP, Deloitte, Devon, KPMG, Petrobras, PWC, Repsol, Shell, and StatoilHydro.
305 See letter from Deloitte.
306 See letter from Petro-Canada.
307 See letters from Apache, CAQ, Canadian Natural, CAPP, Deloitte, Devon, Evolution, ExxonMobil, Petrobras, Petro-Canada, PWC, Repsol, Shell, StatoilHydro, and Total.
308 See letters from Canadian Natural, Deloitte, Evolution, Petrobras, and Shell.
309 See letters from CAQ, Petrobras, and PWC.
310 See Rule 4-10(c) of Regulation S-X [17 CFR 210.4-10(c)].
311 See letter from KPMG.
312 See letter from KPMG.
313 See letter from KPMG.
314 See letters from Audit Policy, CFA, Deloitte, Devon, E&Y, ExxonMobil, PWC, Shell, Standard Advantage, StatoilHydro, and Zakaib.
315 See letters from CFA, Devon, E&Y, StatoilHydro, and Zakaib.
316 See letters from Audit Policy, Deloitte, Devon, E&Y, ExxonMobil, PWC, Shell, StatoilHydro, and Zakaib.
317 See letters from Audit Policy, Devon, E&Y, PWC, StatoilHydro, and Zakaib.
318 See letter from Zakaib.
319 See letters from Apache, Chevron, Davis Polk, Deloitte, ExxonMobil, KPMG, Newfield, Petrobras, Petro-Canada, PWC, Ryder Scott, Shell, Southwestern, Talisman, and Total.
320 See letters from Davis Polk, ExxonMobil, Shell, and StatoilHydro.
321 See letter from ExxonMobil.
322 See letter from Talisman.
323 See letters from Apache, Petrobras, PWC, and Total.
324 See letter from Petrobras.
325 See letter from Apache.
326 See letter from Devon.
327 See letters from Davis Polk, Devon, ExxonMobil, Petrobras, Ryder Scott, Shell, and Wagner.
328 See letter from Evolution.
329 See letter from Davis Polk.
330 44 U.S.C. 3501 et seq.
331 44 U.S.C. 3507(d) and 5 CFR 1320.11.
332 The paperwork burden from Regulation S-K and the Industry Guides is imposed through the forms that are subject to the disclosures in Regulation S-K and the Industry Guides and is reflected in the analysis of those forms. To avoid a Paperwork

Reduction Act inventory reflecting duplicative burdens, for administrative convenience, we estimate the burdens imposed by each of Regulation S-K and the Industry Guides to be a total of one hour.

333 The pertinent annual reports are those on Forms 10-K and 20-F.

334 The disclosure requirements regarding oil and gas properties and activities are in Form 10-K as well as the annual report to security holders required pursuant to Rule 14a-3(b) [17 CFR 240.14a-3(b)]. Form 10-K permits the incorporation by reference of information from the Rule 14a-3(b) annual report to security holders to satisfy the Form 10-K disclosure requirements. The analysis that follows assumes that companies would either provide the proposed disclosure in a Form 10-K or incorporate the required disclosure into the Form 10-K by reference to the Rule 14a-3(b) annual report to security holders if the company is subject to the proxy rules. This approach takes into account the burden from the proposed disclosure requirements that are included in both Form 10-K and Regulation 14A or 14C.

335 For administrative convenience, the presentation of the totals related to the paperwork burden hours have been rounded to the nearest whole number and the cost totals have been rounded to the nearest thousand.

336 In connection with other recent rulemakings, we have had discussions with several private law firms to estimate an hourly rate of $400 as the average cost of outside professionals that assist issuers in preparing disclosures and conducting registered offerings.

338 15 U.S.C. 77b(b).

339 15 U.S.C. 78c(f).

340 15 U.S.C. 78w(a)(2).

341 5 U.S.C. 603.

342 See Release No. 33-8870 (Dec. 12, 2007) [72 FR 71610].

343 17 CFR 230.157.

344 17 CFR 240.0-10(a).

Release No. 78 (S.E.C. Release No.), Release No. 8995, Release No. 59192, Release No. 33-8995, Release No. 34-59192, Release No. FR - 78, 94 S.E.C. Docket 3099, 94 S.E.C. Docket 3235, 2008 WL 5423153

End of Document

Exhibit S52

68 FR 23333-01, 2003 WL 1986739(F.R.)

NOTICES

SECURITIES AND EXCHANGE COMMISSION

[Release Nos. 33-8221; 34-47743; IC-26028; FR-70]

Commission Statement of Policy Reaffirming the Status of the FASB as a Designated Private-Sector Standard Setter

Thursday, May 1, 2003

***23333** AGENCY: Securities and Exchange Commission.

ACTION: Policy statement.

SUMMARY: The Securities and Exchange Commission has determined that the Financial Accounting Standards Board (FASB or Board) and its parent organization, the Financial Accounting Foundation (FAF), satisfy the criteria in section 108 of the Sarbanes-Oxley Act of 2002 and, accordingly, FASB's financial accounting and reporting standards are recognized as "generally accepted" for purposes of the federal securities laws. As a result, registrants are required to continue to comply with those standards in preparing financial statements filed with the Commission, unless the Commission directs otherwise. Our determination is premised on an expectation that the FASB, and any organization affiliated with it, will address the issues set forth in this statement and any future amendments to this statement, and will continue to serve investors and protect the public interest. This policy statement updates Accounting Series Release No. 150, issued on December 20, 1973, which expressed the Commission's intent to continue to look to the private sector for leadership in establishing and improving accounting principles and standards through the FASB with the expectation that the body's conclusions will promote the interests of investors.

FOR FURTHER INFORMATION CONTACT: Scott A. Taub, John W. Albert, or Robert E. Burns, Office of the Chief Accountant, at (202) 942-4400, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549-1103.

SUPPLEMENTARY INFORMATION:

I. Background

The federal securities laws set forth the Commission's broad authority and responsibility to prescribe the methods to be followed in the preparation of accounts and the form and content of financial statements to be filed under those laws, [FN1] as well as its responsibility to ensure that investors are furnished with other information necessary for investment decisions. To assist it in meeting this responsibility, the Commission historically has looked to private-sector standard-setting bodies designated by the accounting profession to develop accounting principles and standards. At the time of the FASB's formation in 1973, the Commission reexamined its policy and formally recognized pronouncements of the FASB that establish and amend accounting principles and standards as "authoritative" in the absence of any contrary determination by the Commission. The Commission concluded at that time that the expertise and resources that the private sector could offer to the process of setting accounting standards would be beneficial to investors.[FN2]

1 See e.g., sections 7, 19(a) and Schedule A, items (25) and (26) of the Securities Act of 1933, 15 U.S.C. 77g, 77s(a), 77aa(25) and (26); sections 3(b), 12(b) and 13(b) of the Securities Exchange Act of 1934, 15 U.S.C. 78c(b), 78*l*(b) and 78m(b); sections 5(b), 14, 15 and 20 of the Public Utility Holding Company Act of 1935, 15 U.S.C. 79e(b), 79n, 79*o* and 79t; sections 8, 30(e), 31 and 38(a) of the Investment Company Act of 1940, 15 U.S.C. 80a-8, 80a-29(e), 80a-30 and 80a-37(a).

FN2 Accounting Series Release No. 150 (December 20, 1973).

On July 30, 2002, President Bush signed the Sarbanes-Oxley Act of 2002. Section 108 of that Act amends section 19 of the Securities Act of 1933 [FN3] to establish criteria that must be met in order for the work product of an accounting standard-setting body to be recognized as "generally accepted." A new subsection 19(b) indicates that in carrying out its authority under section 19 and under section 13(b) of the Securities Exchange Act of 1934 [FN4] the Commission may recognize as "generally accepted" for purposes of the federal securities laws any accounting principles established by a standard setting body that:

3 15 U.S.C. 77s.
FN4 15 U.S.C. 78m.

• Is organized as a private entity;

• Has, for administrative and operational purposes, a board of trustees serving in the public interest, the majority of whom are not, concurrent with their service on such board, and have not been during the two-year period preceding such service, associated persons of any registered public accounting firm;

• Is funded as provided in section 109 of the Sarbanes-Oxley Act;

• Has adopted procedures to ensure prompt consideration, by majority vote of its members, of changes to accounting principles necessary to reflect emerging accounting issues and changing business practices; and

• Considers, in adopting accounting principles, the need to keep standards current in order to reflect changes in the business environment, the extent to which international convergence on high quality accounting standards is necessary or appropriate in the public interest and for the protection of investors.

Representatives of the FASB and FAF have requested that "[t]he FASB * * * " continue to be the designated organization in the private sector for establishing standards of financial accounting and reporting." [FN5]

5 Letter dated August 16, 2002 to SEC Chairman Harvey L. Pitt from Robert H. Herz, Chairman, FASB and Manuel H. Johnson, Chairman and President, FAF. The Act does not restrict the Commission's ability to develop accounting principles on its own, and does not limit the number of private-sector bodies the Commission may recognize.

II. Qualification and Recognition of the FASB

A. Structure of the FASB

In assessing compliance with the provisions of section 108, the Commission has evaluated the organizational structure, operations, and procedures of both the FAF and the FASB. ***23334**

The FAF is comprised of independent trustees and is responsible for overseeing, funding,[FN6] and appointing members of the Board, as well as selecting members of an advisory body.[FN7] The Commission has been informed that the majority of the FAF trustees are not, and have not been during the two-year period preceding their service on the FAF, associated with a public accounting firm. Based on our past relationship with the FAF, we believe that the FAF serves the public interest. Accordingly, the FAF meets the applicable criteria in section 108 of the Sarbanes-Oxley Act for the board of trustees of a recognized private sector accounting standard setter.

6 The funding provisions under section 109 of the Sarbanes-Oxley Act replace the FAF's funding responsibilities; the FAF will continue to be responsible for the fee requests, including establishing the FASB's budget for review by the Commission each year.

FN7 The FASB receives input from, among other sources, a standing advisory body, the Financial Accounting Standards Advisory Council (FASAC), which is comprised of members from the accounting and business communities, academia, and professional organizations, all of whom share an interest in fostering quality financial reporting and disclosure. FASAC's primary mission is to advise the FASB on its projects and agenda. In addition, the FASB has established a User Advisory Council (UAC) to assist the FASB in raising awareness of how investors and investment professionals, equity and credit analysts, and rating agencies use financial information. The FASB has recruited more than 40 professionals, representing a variety of investment and analytical disciplines, to participate on the UAC.

The Board is responsible for promulgating financial accounting and reporting standards. It currently has seven members who have expertise in accounting and financial reporting. Members generally are appointed for five-year terms and can be reappointed to one additional term. Board members are full time employees of the FAF.

B. Commission Oversight of FASB Activities

While the Commission consistently has looked to the private sector in the past to set accounting standards, the securities laws, including the Sarbanes-Oxley Act, clearly provide the Commission with authority to set accounting standards for public companies and other entities that file financial statements with the Commission.[FN8] In addition, recognition of standards set by a private sector standard-setting body as "generally accepted" is only appropriate under section 108 of the Sarbanes-Oxley Act if, among other things, the Commission determines that the private sector body "has the capacity to assist the Commission in fulfilling the requirements of * * * the Securities Exchange Act * * * because, at a minimum, the standard setting body is capable of improving the accuracy and effectiveness of financial reporting and the protection of investors under the securities laws." [FN9] As noted above, section 108 also emphasizes the Commission's responsibility to determine that the standard setting body:

8 Section 108(c) of the Sarbanes-Oxley Act states, "Nothing in this Act, including this section * * * shall be construed to impair or limit the authority of the Commission to establish accounting principles or standards for purposes of enforcement of the securities laws."

FN9 See Securities Act of 1933, section 19(b)(1)(B), as added by the Sarbanes-Oxley Act.

• Has "procedures to ensure prompt consideration * * * of changes to accounting principles necessary to reflect emerging accounting issues and changing business practices";

• Considers the need to amend standards "to reflect changes in the business environment"; and

• Considers, to the extent necessary or appropriate, international convergence of accounting standards.

Given the Commission's responsibilities under the securities laws and our specific responsibilities under the Sarbanes-Oxley Act to make findings regarding the procedures, capabilities, activities, and results of any designated accounting standards-setting body, we believe that:

• The FAF and FASB should give the Commission timely notice of, and discuss with the Commission, the FAF's intention to appoint a new member of the FAF or FASB.[FN10] While the FAF makes the final determinations regarding the selection of FASB and FAF members, we believe that to fulfill our statutory responsibilities we should provide the FAF with our views and that the FAF should consider those views in making its final selection. The Commission, FAF, and FASB share the belief that the qualifications and appropriateness of each member of the FAF and the FASB are critical if the FASB is to continue to be a premier private-sector standards-setting body.

10 Such consultations have occurred in the past. See, e.g., SEC Press Release No. 96-87, "FAF and SEC Reach Agreement on Changes in Composition of Accounting Foundation: Appointing Three New Trustees to Serve," dated July 8, 1996, which states, "The FAF selected the new At-Large Trustees in consultation with the SEC"; SEC Annual Report 1996, at 90-91, which states, "The change in composition of the FAF's Board was made in consultation with the SEC to include a greater representation by those who do not have a special interest in the outcome of accounting standards setting," and FAF, 1996 Annual Report of the Financial Accounting Foundation," at 5, which states, "In consultation with the chairman of the Securities and Exchange Commission, the FAF agreed in July to change the composition of the Foundation's Board."

• The FASB, in its role of "assist(ing) the Commission in fulfilling the requirements of the Securities Exchange Act," [FN11] should provide timely guidance to public companies, accounting firms, regulators and others on accounting issues that the Commission considers to be of immediate significance to investors. The Commission and its staff, however, do not prohibit the FASB from also addressing other topics, and do not dictate the direction or outcome of specific FASB projects so long as the conclusions reached by the FASB are in the interest of investor protection. We expect that the Commission staff [FN12] will refer issues to the FASB or one of its affiliated organizations [FN13] when those issues may warrant new, amendments to, or formal interpretations of, accounting standards. We also expect that the FASB will address such issues in a timely manner. On those occasions when the FASB may determine that consideration of the issue is not advisable or that the issue cannot be resolved within the time frame acceptable to the Commission,[FN14] we expect that the FASB promptly will notify the Commission or its staff, provide us with its views regarding an appropriate resolution of the issue, and diligently work with us and our staff to ensure the protection of investors from misleading or inadequate accounting or disclosures.

11 Section 19(b)(1)(B) of the Securities Act of 1933, as added by section 108 of the Sarbanes-Oxley Act of 2002.

FN12 The Commission staff will continue to take such action on a day-to-day basis as may be appropriate to resolve specific accounting and reporting issues under the particular factual circumstances involved in filings and reports of individual registrants.

FN13 For example, the issue may be referred to the FASB's Emerging Issues Task Force (EITF). The EITF is comprised of approximately 13 members who serve, generally without compensation, on a part-time basis. EITF members are partners in large, medium and small accounting firms, business executives, financial analysts and other users of financial statements, and academics. Upon ratification of an EITF consensus by the FASB, the consensus is published as part of the EITF's minutes and may be relied on by Commission registrants and others in the preparation of financial statements that purport to conform to generally accepted accounting principles.

FN14 We expect such occasions will be infrequent because the Commission and the FASB share the goal of providing timely guidance to public companies and accounting firms on matters that are significant to investors.

• Because the Commission and FASB share the common goal of providing investors with the disclosure of meaningful financial information, we anticipate continuation of our collegial working relationship with the FASB. To that end, we expect that, when ***23335** requested to do so, the FASB will make information and staff reasonably available to facilitate our, or our staff's, understanding and implementation of a FASB standard.

The Commission and its staff intend to work with the FAF and the Board to ensure that proper oversight procedures and policies are in place to allow the Commission to assess whether the FASB continues to meet the characteristics of an accounting-standard setter that are discussed in the Sarbanes-Oxley Act.

C. Key FASB Initiatives

As noted earlier, the Commission has treated FASB accounting standards as "authoritative" since 1973. In order for U.S. accounting standards to remain relevant and to continue to improve, however, the Commission expects the FASB to:

• Consider, in adopting accounting principles, the extent to which international convergence on high quality accounting standards is necessary or appropriate in the public interest and for the protection of investors,[FN15] including

consideration of moving towards greater reliance on principles-based accounting standards whenever it is reasonable to do so;

15 We expect that during its deliberations of an accounting issue the FASB will consider, among other things, international accounting standards addressing that issue.

• Take reasonable steps to continue to improve the timeliness with which it completes its projects, while satisfying appropriate public notice and comment requirements; [FN16] and

16 These ideas, among others, are embodied in the FASB's current Rules of Procedure. To the extent that the FAF or FASB determines that inadequate staffing or resources hampers the timeliness of the FASB's processes, the Commission will review requests for increases in the FASB's budget in accordance with the procedures in section 109(e) of the Sarbanes-Oxley Act.

• Continue to be objective in its decision-making and to weigh carefully the views of its constituents and the expected benefits and perceived costs of each standard.[FN17]

17 Id.

D. FASB's Independence

While effective oversight of the FASB's activities is necessary in order for the Commission to carry out its responsibilities under the securities laws, we recognize the importance of the FASB's independence. By virtue of today's Commission determination, the FASB will continue its role as the preeminent accounting standard setter in the private sector. In performing this role, the FASB must use independent judgment in setting standards and should not be constrained in its exploration and discussion of issues. This is necessary to ensure that the standards developed are free from bias and have the maximum credibility in the business and investing communities.[FN18]

18 The occasions where the Commission has not accepted a particular FASB standard have been rare due, in part, to our recognition and support of FASB's independence. As noted elsewhere in this release, the Commission and its staff do not prohibit the FASB from addressing a particular topic and do not dictate the direction or outcome of specific FASB projects provided that the conclusions reached by the FASB are in the interest of investor protection.

E. Conclusion

Based on available information, the organizational structure, operating activities, and procedures of the FAF and FASB meet the criteria in section 108 the Sarbanes-Oxley Act.[FN19] In addition, the Commission has determined that the FASB has the capacity to assist the Commission in fulfilling the requirements of subsection 19(a) of the Securities Act of 1933 and section 13(b) of the Securities Exchange Act of 1934 and is capable of improving both the accuracy and effectiveness of financial reporting and the protection of investors under the securities laws.[FN20] Accordingly, the standards set by the FASB are recognized as “generally accepted” under section 108 of the Sarbanes-Oxley Act.

19 As noted above, one of the statutory criteria is that the recognized accounting body is funded as provided in section 109 of the Sarbanes-Oxley Act. We are providing an endorsement of the FASB so that it may begin to work with the Public Company Accounting Oversight Board to implement the funding mechanisms in section 109. Our recognition of the FASB is in anticipation of and with the expectation that this funding will be forthcoming in the near term.

FN20 See, section 108(a) of the Sarbanes-Oxley Act; section 19(b)(1)(B) of the Securities Act of 1933, 15 U.S. 77s(b)(1)(B).

As required under the securities laws, including the Sarbanes-Oxley Act, the Commission will monitor the FASB's procedures, qualifications, capabilities, activities, and results, as well as the FAF's and FASB's ongoing compliance

with the expectations and views expressed in this policy statement. We will issue an appropriate revision of this policy statement if we determine that the FAF or FASB no longer meets the statutory criteria or expectations discussed in this policy statement, or if we consider it otherwise necessary or appropriate to do so.

III. Regulatory Requirements

This policy statement is not an agency rule requiring notice of proposed rulemaking, opportunities for public participation, and prior publication under the provisions of the Administrative Procedure Act (APA). Similarly, the provisions of the Regulatory Flexibility Act, which apply only when notice and comment are required by the APA or another statute, are not applicable.

IV. Codification Update

The "Codification of Financial Reporting Policies" announced in Financial Reporting Release No. 1 (April 15, 1982) [47 FR 21028] is updated as follows:

1. By adding at the end of Section 101, under the Financial Reporting Number (FR-70) assigned to this policy statement, the text in the policy statement beginning with the second paragraph in Section I. and all of Section II. of this release.

2. By renumbering the footnotes from this release that are included in the Codification to run consecutively from number one through number 18.

The Codification is a separate publication of the Commission. It will not be published in the Federal Register/Code of Federal Regulations.

By the Commission.

Dated: April 25, 2003.

J. Lynn Taylor,

Assistant Secretary.

[FR Doc. 03-10716 Filed 4-30-03; 8:45 am]

BILLING CODE 8010-01-P

Exhibit S53

360-10-35 Subsequent Measurement

General Note: The Subsequent Measurement Section provides guidance on an entity's subsequent measurement and subsequent recognition of an item. Situations that may result in subsequent changes to carrying amount include impairment, credit losses, fair value adjustments, depreciation and amortization, and so forth.

General

35-1 This Subsection addresses depreciation of property, plant, and equipment and the post acquisition accounting for an interest in the residual value of a leased asset.

> Depreciation

35-2 This guidance addresses the concept of depreciation accounting and the various factors to consider in selecting the related periods and methods to be used in such accounting.

35-3 Depreciation expense in financial statements for an asset shall be determined based on the asset's useful life.

35-4 The cost of a productive facility is one of the costs of the services it renders during its useful economic life. Generally accepted accounting principles (GAAP) require that this cost be spread over the expected useful life of the facility in such a way as to allocate it as equitably as possible to the periods during which services are obtained from the use of the facility. This procedure is known as depreciation accounting, a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation.

35-5 See paragraph 360-10-35-20 for a discussion of depreciation of a new cost basis after recognition of an **impairment** loss.

35-6 See paragraph 360-10-35-43 for a discussion of cessation of depreciation on long-lived assets classified as held for sale.

>> Declining Balance Method

35-7 The declining-balance method is an example of one of the methods that meet the requirements of being systematic and rational. If the expected productivity or revenue-earning power of the asset is relatively greater during the earlier years of its life, or maintenance charges tend to increase during later years, the declining-balance method may provide the most satisfactory allocation of cost. That conclusion also applies to other methods, including the sum-of-the-years'-digits method, that produce substantially similar results.

Pending Content:
Transition Date: *(P) December 16, 2017; (N) December 16, 2018* **| Transition Guidance:** 606-10-65-1
The declining-balance method is an example of one of the methods that meet the requirements of being systematic and rational. If the expected productivity of the asset or ability of the asset to generate revenue is relatively greater during the earlier years of its life, or maintenance charges tend to increase during later years, the declining-balance method may provide the most satisfactory allocation of cost. That conclusion also applies to other methods, including the sum-of-the-years'-digits method, that produce substantially similar results.

>> Loss or Damage Experience as a Factor in Estimating Depreciable Lives

35-8 In practice, experience regarding loss or damage to depreciable assets is in some cases one of the factors considered in estimating the depreciable lives of a group of depreciable assets, along with such other factors as wear and tear, obsolescence, and maintenance and replacement policies.

>> Unacceptable Depreciation Methods

35-9 If the number of years specified by the Accelerated Cost Recovery System of the Internal Revenue Service (IRS) for recovery deductions for an asset does not fall within a reasonable range of the asset's useful life, the recovery deductions shall not be used as depreciation expense for financial reporting.

35-10 Annuity methods of depreciation are not acceptable for entities in general.

>> Accounting Changes

35-11 See paragraphs 250-10-45-17 through 45-20 for guidance on the accounting and presentation of changes in methods of depreciation.

35-12 [Paragraph Not Used]

> Adjusting the Residual Value in Leased Assets by a Third Party

35-13 The following paragraph provides guidance on how an entity acquiring an interest in the residual value of a leased asset shall account for that asset during the lease term.

35-14 An entity acquiring an interest in the residual value of any leased asset, irrespective of the classification of the related lease by the lessor, shall not recognize increases to the asset's estimated value over the remaining term of the related lease, and the asset shall be reported at no more than its acquisition cost until sale or disposition. If it is subsequently determined that the fair value of the residual value of a leased asset has declined below the carrying amount of the acquired interest and that decline is other than temporary, the asset shall be written down to fair value, and the amount of the write-down shall be recognized as a loss. That fair value becomes the asset's new carrying amount, and the asset shall not be increased for any subsequent increase in its fair value before its sale or disposition.

Impairment or Disposal of Long-Lived Assets

35-15 There are unique requirements of accounting for the **impairment** or disposal of long-lived assets to be held and used or to be disposed of. Although this guidance deals with matters which may lead to the ultimate disposition of assets, it is included in this Subsection because it describes the measurement and classification of assets to be held and used and assets held for disposal before actual disposition and derecognition. See the Impairment or Disposal of Long-Lived Assets Subsection of Section 360–10–40 for a discussion of assets or asset groups for which disposition has taken place in an exchange or distribution to owners.

> Long-Lived Assets Classified as Held and Used

35-16 This guidance addresses how long-lived assets or asset groups that are intended to be held and used in an entity's business shall be reviewed for impairment.

>> Measurement of an Impairment Loss

35-17 An impairment loss shall be recognized only if the carrying amount of a long-lived asset (**asset group**) is not recoverable and exceeds its fair value. The carrying amount of a long-lived asset (asset group) is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset (asset group). That assessment shall be based on the carrying amount of the asset (asset group) at the date it is tested for recoverability, whether in use (see paragraph 360-10-35-33) or under development (see paragraph 360-10-35-34). An impairment loss shall be measured as the amount by which the carrying amount of a long-lived asset (asset group) exceeds its fair value.

>>> Assets Subject to Asset Retirement Obligations

35-18 In applying the provisions of this Subtopic, the carrying amount of the asset being tested for impairment shall include amounts of capitalized asset retirement costs. Estimated future cash flows related to the liability for an asset retirement obligation that has been recognized in the financial statements shall be excluded from both of the following:

a. The undiscounted cash flows used to test the asset for recoverability

b. The discounted cash flows used to measure the asset's fair value.

35-19 If the fair value of the asset is based on a quoted market price and that price considers the costs that will be incurred in retiring that asset, the quoted market price shall be increased by the fair value of the asset retirement obligation for purposes of measuring impairment.

>> Adjusted Carrying Amount Becomes New Cost Basis

35-20 If an impairment loss is recognized, the adjusted carrying amount of a long-lived asset shall be its new cost basis. For a depreciable long-lived asset, the new cost basis shall be depreciated (amortized) over the remaining useful life of that asset. Restoration of a previously recognized impairment loss is prohibited.

>> When to Test a Long-Lived Asset for Recoverability

35-21 A long-lived asset (asset group) shall be tested for recoverability whenever events or changes in circumstances indicate that its carrying amount may not be recoverable. The following are examples of such events or changes in circumstances:

a. A significant decrease in the market price of a long-lived asset (asset group)

b. A significant adverse change in the extent or manner in which a long-lived asset (asset group) is being used or in its physical condition

c. A significant adverse change in legal factors or in the business climate that could affect the value of a long-lived asset (asset group), including an adverse action or assessment by a

regulator

d. An accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of a long-lived asset (asset group)

e. A current-period operating or cash flow loss combined with a history of operating or cash flow losses or a projection or forecast that demonstrates continuing losses associated with the use of a long-lived asset (asset group)

f. A current expectation that, more likely than not, a long-lived asset (asset group) will be sold or otherwise disposed of significantly before the end of its previously estimated useful life. The term *more likely than not* refers to a level of likelihood that is more than 50 percent.

35-22 When a long-lived asset (asset group) is tested for recoverability, it also may be necessary to review depreciation estimates and method as required by Topic 250 or the amortization period as required by Topic 350. Paragraphs 250-10-45-17 through 45-20 and 250-10-50-4 address the accounting for changes in estimates, including changes in the method of depreciation, amortization, and depletion. Paragraphs 350-30-35-1 through 35-5 address the determination of the useful life of an intangible asset. Any revision to the remaining useful life of a long-lived asset resulting from that review also shall be considered in developing estimates of future cash flows used to test the asset (asset group) for recoverability (see paragraphs 360-10-35-31 through 35-32). However, any change in the accounting method for the asset resulting from that review shall be made only after applying this Subtopic.

>> Grouping Long-Lived Assets Classified as Held and Used

35-23 For purposes of recognition and measurement of an impairment loss, a long-lived asset or assets shall be grouped with other assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. However, an impairment loss, if any, that results from applying this Subtopic shall reduce only the carrying amount of a long-lived asset or assets of the group in accordance with paragraph 360-10-35-28.

35-24 In limited circumstances, a long-lived asset (for example, a corporate headquarters facility) may not have identifiable cash flows that are largely independent of the cash flows of other assets and liabilities and of other asset groups. In those circumstances, the asset group for that long-lived asset shall include all assets and liabilities of the entity.

35-25 In limited circumstances, an asset group will include all assets and liabilities of the entity. For example, the cost of operating assets such as corporate headquarters or centralized research facilities may be funded by revenue-producing activities at lower levels of the entity. Accordingly, in limited circumstances, the lowest level of identifiable cash flows that are largely independent of other asset groups may be the entity level. See Example 4 (paragraph 360-10-55-35).

>>> Effect of Goodwill when Grouping

35-26 Goodwill shall be included in an asset group to be tested for impairment under this Subtopic only if the asset group is or includes a reporting unit. Goodwill shall not be included in a lower-level asset group that includes only part of a reporting unit. Estimates of future cash flows used to test that lower-level asset group for recoverability shall not be adjusted for the effect of excluding goodwill from the group. The term *reporting unit* is defined in Topic 350 as the same level as or one level below an **operating segment.** That Topic requires that goodwill be tested for impairment at the reporting unit level.

35-27 Other than goodwill, the carrying amounts of any assets (such as accounts receivable and inventory) and liabilities (such as accounts payable, long-term debt, and asset retirement obligations) not covered by this Subtopic that are included in an asset group shall be adjusted in accordance with other applicable generally accepted accounting principles (GAAP) before testing the asset group for recoverability. Paragraph 350-20-35-31 requires that goodwill be tested for impairment only after the carrying amounts of the other assets of the reporting unit, including the long-lived assets covered by this Subtopic, have been tested for impairment under other applicable accounting guidance.

>> Allocating Impairment Losses to an Asset Group

35-28 An impairment loss for an asset group shall reduce only the carrying amounts of a long-lived asset or assets of the group. The loss shall be allocated to the long-lived assets of the group on a pro rata basis using the relative carrying amounts of those assets, except that the loss allocated to an individual long-lived asset of the group shall not reduce the carrying amount of that asset below its fair value whenever that fair value is determinable without undue cost and effort. See Example 1 (paragraph 360-10-55-20) for an illustration of this guidance.

>> Estimates of Future Cash Flows Used to Test a Long-Lived Asset for Recoverability

35-29 Estimates of future cash flows used to test the recoverability of a long-lived asset (asset group) shall include only the future cash flows (cash inflows less associated cash outflows) that are directly associated with and that are expected to arise as a direct result of the use and eventual disposition of the asset (asset group). Those estimates shall exclude interest charges that will be recognized as an expense when incurred.

35-30 Estimates of future cash flows used to test the recoverability of a long-lived asset (asset group) shall incorporate the entity's own assumptions about its use of the asset (asset group) and shall consider all available evidence. The assumptions used in developing those estimates shall be reasonable in relation to the assumptions used in developing other information used by the entity for comparable periods, such as internal budgets and projections, accruals related to incentive

compensation plans, or information communicated to others. However, if alternative courses of action to recover the carrying amount of a long-lived asset (asset group) are under consideration or if a range is estimated for the amount of possible future cash flows associated with the likely course of action, the likelihood of those possible outcomes shall be considered. A probability-weighted approach may be useful in considering the likelihood of those possible outcomes. See Example 2 (paragraph 360-10-55-23) for an illustration of this guidance.

35-31 Estimates of future cash flows used to test the recoverability of a long-lived asset (asset group) shall be made for the remaining useful life of the asset (asset group) to the entity. The remaining useful life of an asset group shall be based on the remaining useful life of the primary asset of the group. For purposes of this Subtopic, the primary asset is the principal long-lived tangible asset being depreciated or intangible asset being amortized that is the most significant component asset from which the asset group derives its cash-flow-generating capacity. The primary asset of an asset group therefore cannot be land or an intangible asset not being amortized.

35-32 Factors that an entity generally shall consider in determining whether a long-lived asset is the primary asset of an asset group include the following:

a. Whether other assets of the group would have been acquired by the entity without the asset

b. The level of investment that would be required to replace the asset

c. The remaining useful life of the asset relative to other assets of the group. If the primary asset is not the asset of the group with the longest remaining useful life, estimates of future cash flows for the group shall assume the sale of the group at the end of the remaining useful life of the primary asset.

35-33 Estimates of future cash flows used to test the recoverability of a long-lived asset (asset group) that is in use, including a long-lived asset (asset group) for which development is substantially complete, shall be based on the existing service potential of the asset (asset group) at the date it is tested. The service potential of a long-lived asset (asset group) encompasses its remaining useful life, cash-flow-generating capacity, and for tangible assets, physical output capacity. Those estimates shall include cash flows associated with future expenditures necessary to maintain the existing service potential of a long-lived asset (asset group), including those that replace the service potential of component parts of a long-lived asset (for example, the roof of a building) and component assets other than the primary asset of an asset group. Those estimates shall exclude cash flows associated with future capital expenditures that would increase the service potential of a long-lived asset (asset group).

35-34 Estimates of future cash flows used to test the recoverability of a long-lived asset (asset group) that is under development shall be based on the expected service potential of the asset (group) when development is substantially complete. Those estimates shall include cash flows associated with all future expenditures necessary to develop a long-lived asset (asset group), including interest

payments that will be capitalized as part of the cost of the asset (asset group). Subtopic 835-20 requires the capitalization period to end when the asset is substantially complete and ready for its intended use.

35-35 If a long-lived asset that is under development is part of an asset group that is in use, estimates of future cash flows used to test the recoverability of that group shall include the cash flows associated with future expenditures necessary to maintain the existing service potential of the group (see paragraph 360-10-35-33) as well as the cash flows associated with all future expenditures necessary to substantially complete the asset that is under development (see the preceding paragraph). See Example 3 (paragraph 360-10-55-33). See also paragraphs 360-10-55-7 through 55-18 for considerations of site restoration and environmental exit costs.

>> Fair Value

35-36 For long-lived assets (asset groups) that have uncertainties both in timing and amount, an expected present value technique will often be the appropriate technique with which to estimate fair value.

> Long-Lived Assets Classified as Held for Sale

35-37 This guidance addresses the accounting for expected disposal losses for long-lived assets and asset groups that are classified as held for sale but have not yet been sold. See paragraphs 360-10-45-9 through 45-11 for the initial criteria to be met for classification as held for sale.

>> Measurement of Expected Disposal Loss or Gain

35-38 Costs to sell are the incremental direct costs to transact a sale, that is, the costs that result directly from and are essential to a sale transaction and that would not have been incurred by the entity had the decision to sell not been made. Those costs include broker commissions, legal and title transfer fees, and closing costs that must be incurred before legal title can be transferred. Those costs exclude expected future losses associated with the operations of a long-lived asset (**disposal group**) while it is classified as held for sale. Expected future operating losses that marketplace participants would not similarly consider in their estimates of the fair value less cost to sell of a long-lived asset (disposal group) classified as held for sale shall not be indirectly recognized as part of an expected loss on the sale by reducing the carrying amount of the asset (disposal group) to an amount less than its current fair value less cost to sell. If the sale is expected to occur beyond one year as permitted in limited situations by paragraph 360-10-45-11, the cost to sell shall be discounted.

35-39 The carrying amounts of any assets that are not covered by this Subtopic, including goodwill, that are included in a disposal group classified as held for sale shall be adjusted in accordance with other applicable GAAP prior to measuring the fair value less cost to sell of the disposal group.

Paragraphs 350-20-40-1 through 40-7 provide guidance for allocating goodwill to a lower-level asset group to be disposed of that is part of a reporting unit and that constitutes a business. Goodwill is not included in a lower-level asset group to be disposed of that is part of a reporting unit if it does not constitute a business.

35-40 A loss shall be recognized for any initial or subsequent write-down to fair value less cost to sell. A gain shall be recognized for any subsequent increase in fair value less cost to sell, but not in excess of the cumulative loss previously recognized (for a write-down to fair value less cost to sell). The loss or gain shall adjust only the carrying amount of a long-lived asset, whether classified as held for sale individually or as part of a disposal group.

35-41 See paragraphs 310-40-35-11 and 310-40-40-10 for guidance related to determination of cost basis for foreclosed assets under Subtopic 310-40 and the measurement of cumulative losses previously recognized under the preceding paragraph.

35-42 See paragraphs 830-30-45-13 through 45-15 for guidance regarding the application of Topic 830 to an investment being evaluated for impairment that will be disposed of.

>> Accounting While Held for Sale

35-43 A long-lived asset (disposal group) classified as held for sale shall be measured at the lower of its carrying amount or fair value less cost to sell. If the asset (disposal group) is newly acquired, the carrying amount of the asset (disposal group) shall be established based on its fair value less cost to sell at the acquisition date. A long-lived asset shall not be depreciated (amortized) while it is classified as held for sale. Interest and other expenses attributable to the liabilities of a disposal group classified as held for sale shall continue to be accrued.

>> Changes to a Plan of Sale

35-44 If circumstances arise that previously were considered unlikely and, as a result, an entity decides not to sell a long-lived asset (disposal group) previously classified as held for sale, the asset (disposal group) shall be reclassified as held and used. A long-lived asset that is reclassified shall be measured individually at the lower of the following:

a. Its carrying amount before the asset (disposal group) was classified as held for sale, adjusted for any depreciation (amortization) expense that would have been recognized had the asset (disposal group) been continuously classified as held and used

b. Its fair value at the date of the subsequent decision not to sell.

35-45 If an entity removes an individual asset or liability from a disposal group previously classified as held for sale, the remaining assets and liabilities of the disposal group to be sold shall continue to be measured as a group only if the criteria in paragraph 360-10-45-9 are met. Otherwise, the remaining

long-lived assets of the group shall be measured individually at the lower of their carrying amounts or fair values less cost to sell at that date.

> Long-Lived Assets to Be Disposed of Other than by Sale

35-46 This guidance addresses the accounting for impairment of long-lived assets and asset groups that are intended to be disposed of by abandonment.

>> Long-Lived Assets to Be Abandoned

35-47 For purposes of this Subtopic, a long-lived asset to be abandoned is disposed of when it ceases to be used. If an entity commits to a plan to abandon a long-lived asset before the end of its previously estimated useful life, depreciation estimates shall be revised in accordance with paragraphs 250-10-45-17 through 45-20 and 250-10-50-4 to reflect the use of the asset over its shortened useful life (see paragraph 360-10-35-22).

35-48 Because the continued use of a long-lived asset demonstrates the presence of service potential, only in unusual situations would the fair value of a long-lived asset to be abandoned be zero while it is being used. When a long-lived asset ceases to be used, the carrying amount of the asset should equal its salvage value, if any. The salvage value of the asset shall not be reduced to an amount less than zero.

>> Long-Lived Asset Temporarily Idled

35-49 A long-lived asset that has been temporarily idled shall not be accounted for as if abandoned.

END OF DOCUMENT -

Exhibit S54

Accounting for the Impairment or Disposal of Long-Lived Assets (as amended) [Superseded by FASB Codification 9/15/2009]

FAS 144 STATUS

Issued: August 2001

Effective Date:

For financial statements issued for fiscal years beginning after December 15, 2001 and interim periods within those fiscal years

[Related document(s):

IFRS 5

IAS 36]

Affects:

Amends ARB 51, paragraph 2

Deletes ARB 51, paragraph 12

Amends APB 18, paragraph 19(h)

Amends APB 28, paragraphs 21, 30(e), and 31

Amends APB 29, paragraphs 21 and 23

Amends APB 30, paragraphs 3, 11, 23, and 25

Deletes APB 30, paragraphs 8, 9, and 13 through 18 and footnotes 2 and 5 through 7

Amends AIN-APB 30, Interpretation No. 1

Amends FAS 15, paragraphs 28 and 33

Replaces FAS 19, paragraph 44(a)

Replaces FAS 19, paragraph after paragraph 62 added by FAS 121

Amends FAS 34, paragraph 19

Amends FAS 43, paragraph 2

Amends FAS 51, paragraph 14

Amends FAS 60, paragraph 48

Amends FAS 61, paragraph 6

Amends FAS 66, paragraph 65

Replaces FAS 66, footnote 5

Amends FAS 67, paragraphs 3, 24, and 28

Deletes FAS 67, paragraph 16

Replaces FAS 67, paragraph 25

Amends FAS 71, paragraphs 9 and 10 and by adding a paragraph after paragraph 10

Deletes FAS 88, paragraphs 6(a) and 57 (Example 3A)

Supersedes FAS 88, paragraphs 8 and 16

Amends FAS 94, paragraph 13

Amends FAS 101, paragraph 6

Amends FAS 106, paragraph 96(a)

Deletes FAS 106, paragraph 103

Amends FAS 112, paragraph 9

Amends FAS 115, paragraph 8(c)

Amends FAS 117, paragraph 164

Supersedes FAS 121

Amends FAS 123, paragraph 9

Deletes FAS 141, footnote 18

Deletes FAS 142, paragraph 7 and footnote 22

Amends FAS 142, paragraphs 15, 17, 28(f), 29, and Appendix A (Examples 1 through 3, 5, and 9)

Amends FAS 143, paragraphs 2 and 12

Deletes FAS 143, footnote 11

Amends FIN 18, paragraphs 19, 35, and 71

Replaces FIN 18, footnotes 1 and 20

Deletes FIN 27, paragraph 3

Amends FIN 39, paragraph 7

Affected by:

Paragraph 5 amended by FAS 141(R), paragraph E45; FAS 145, and 9(n); and FAS 147, paragraph B4

Paragraphs 9 and 28 amended by FAS 154, paragraphs C15(a) and C15(b), respectively

Paragraphs 22 and 24 deleted by FAS 157, paragraphs E24(a) and E24(c), respectively

Paragraph 23 amended by FAS 157, paragraph E24(b)

Paragraphs 27 and 29 and footnote 17 amended by FAS 153, paragraph 5

Paragraph 33 and footnote 20 amended by FAS 165, paragraph B11

Paragraph 43 amended by FAS 154, paragraph C19

Paragraph 45 amended by FAS 145, paragraph 9(n)

Paragraph A3 amended by FAS 151, paragraph 3

Paragraphs A6 through A8, A11, A13, and A14 amended by FAS 157, paragraphs E24(d) through E24(g), E24(i), and E24(j), respectively

Paragraphs A12 and E1 through E3 deleted by FAS 157, paragraphs E24(h) and E24(k), respectively

Paragraph D1 amended by FAS 141(R), paragraph E28; FAS145, paragraphs 7(d) and 9(n); and FAS 147, paragraph B4

Footnotes 7 and 24 amended by FAS 154, paragraphs C15(a) and C15(c), respectively

Footnotes 12 through 14, 28, and 29 deleted by FAS 157, paragraphs E24(a) through E24(c), E24(g), and E24(h), respectively

Other Interpretive Release: FASB Staff Position FAS 144-1

AICPA Accounting Standards Executive Committee (AcSEC)

Related Pronouncements:

SOP 85-3

SOP 90-7

Other Interpretive Pronouncements:

Other Interpretive Release: FASB Staff Position FAS 144-1 (in *Current Text*Section D60)

Issues Discussed by FASB Emerging Issues Task Force (EITF)

Affects: Nullifies EITF Issues No. 85-3687-11, 90-6, 90-16, 95-18, and Topic No. D-45

Partially nullifies EITF Issue No. 93-4

Resolves EITF Issues No. 84-28 and 95-21

Partially resolves EITF Issue No. 01-2

Interpreted by: Paragraphs 8 through 16 interpreted by EITF Issue No. 95-23

Paragraphs 17 through 21 interpreted by EITF Isses No. 95-23 and 04-3

Paragraphs 29, 41, and 42 interpreted by EITF Issue No. 02-11

Paragraph 34 interpreted by EITF Issue No. 01-5

Paragraph 43 interpreted by EITF Issues No. 87-24, 93-17, and 02-11

Paragraph 44 interpreted by EITF Issue No. 02-11

Paragraph 51 interpreted by EITF Topic No. D-104

Interpreted by:

Related Issues: EITF Issues No. 86-22, 87-4, 87-18, 87-24, 89-13, 93-11, 97-4, 99-14, 00-26, 01-2, 03-1, and 03-13

FAS 144 Summary

This Statement addresses financial accounting and reporting for the impairment or disposal of long-lived assets. This Statement supersedes FASB Statement No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of,* and the accounting and reporting provisions of APB Opinion No. 30, *Reporting the Results of Operations—Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions,* for the disposal of a *segment of a business* (as previously defined in that Opinion). This Statement also amends ARB No. 51, *Consolidated Financial Statements,* to eliminate the exception to consolidation for a subsidiary for which control is likely to be temporary.

Reasons for Issuing This Statement

Because Statement 121 did not address the accounting for a segment of a business accounted for as a discontinued operation under Opinion 30, two accounting models existed for long-lived assets to be disposed of. The Board decided to establish a single accounting model, based on the framework established in Statement 121, for long-lived assets to be disposed of by sale. The Board also decided to resolve significant implementation issues related to Statement 121.

Differences between This Statement, Statement 121, and Opinion 30 and Additional Implementation Guidance

Long-Lived Assets to Be Held and Used

This Statement retains the requirements of Statement 121 to (a) recognize an impairment loss only if the carrying amount of a long-lived asset is not recoverable from its undiscounted cash flows and (b) measure an impairment loss as the difference between the carrying amount and fair value of the asset. To resolve implementation issues, this Statement:

• Removes goodwill from its scope and, therefore, eliminates the requirement of Statement 121 to allocate goodwill to long-lived assets to be tested for impairment

• Describes a probability-weighted cash flow estimation approach to deal with situations in which alternative courses of action to recover the carrying amount of a long-lived asset are under consideration or a range is estimated for the amount of possible future cash flows

• Establishes a “primary-asset” approach to determine the cash flow estimation period for a group of assets and liabilities that represents the unit of accounting for a long-lived asset to be held and used

Long-Lived Assets to Be Disposed Of Other Than by Sale

This Statement requires that a long-lived asset to be abandoned, exchanged for a similar productive asset, or distributed to owners in a spinoff be considered held and used until it is disposed of. To resolve implementation issues, this Statement:

• Requires that the depreciable life of a long-lived asset to be abandoned be revised in accordance with APB Opinion No. 20, *Accounting Changes*

• Amends APB Opinion No. 29, *Accounting for Nonmonetary Transactions,* to require that an impairment loss be recognized at the date a long-lived asset is exchanged for a similar productive asset or distributed to owners in a spinoff if the carrying amount of the asset exceeds its fair value.

Long-Lived Assets to Be Disposed Of by Sale

The accounting model for long-lived assets to be disposed of by sale is used for all long-lived assets, whether previously held and used or newly acquired. That accounting model retains the requirement of Statement 121 to measure a long-lived asset classified as held for sale at the lower of its carrying amount or fair value less cost to sell and to cease depreciation (amortization). Therefore, discontinued operations are no longer measured on a net realizable value basis, and future operating losses are no longer recognized before they occur.

This Statement retains the basic provisions of Opinion 30 for the presentation of discontinued operations in the income statement but broadens that presentation to include a component of an entity (rather than a segment of a business). A component of an entity comprises operations and cash flows that can be clearly distinguished, operationally and for financial reporting purposes, from the rest of the entity. A component of an entity that is classified as held for sale or that has been disposed of is presented as a discontinued operation if the operations and cash flows of the component will be (or

have been) eliminated from the ongoing operations of the entity and the entity will not have any significant continuing involvement in the operations of the component.

To resolve implementation issues, this Statement:

• Establishes criteria beyond that previously specified in Statement 121 to determine when a long-lived asset is held for sale, including a group of assets and liabilities that represents the unit of accounting for a long-lived asset classified as held for sale. Among other things, those criteria specify that (a) the asset must be available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such assets and (b) the sale of the asset must be probable, and its transfer expected to qualify for recognition as a completed sale, within one year, with certain exceptions.

• Provides guidance on the accounting for a long-lived asset if the criteria for classification as held for sale are met after the balance sheet date but before issuance of the financial statements. That guidance prohibits retroactive reclassification of the asset as held for sale at the balance sheet date. Therefore, the guidance in EITF Issue No. 95-18, "Accounting and Reporting for a Discontinued Business Segment When the Measurement Date Occurs after the Balance Sheet Date but before the Issuance of Financial Statements," is superseded.

• Provides guidance on the accounting for a long-lived asset classified as held for sale if the asset is reclassified as held and used. The reclassified asset is measured at the lower of its (a) carrying amount before being classified as held for sale, adjusted for any depreciation (amortization) expense that would have been recognized had the asset been continuously classified as held and used, or (b) fair value at the date the asset is reclassified as held and used.

How the Changes in This Statement Improve Financial Reporting

The changes in this Statement improve financial reporting by requiring that one accounting model be used for long-lived assets to be disposed of by sale, whether previously held and used or newly acquired, and by broadening the presentation of discontinued operations to include more disposal transactions. Therefore, the accounting for similar events and circumstances will be the same. Additionally, the information value of reported financial information will be improved. Finally, resolving significant implementation issues will improve compliance with the requirements of this Statement and, therefore, comparability among entities and the representational faithfulness of reported financial information.

How the Conclusions in This Statement Relate to the Conceptual Framework

In reconsidering the use of a measurement approach based on net realizable value, and the accrual of future operating losses required under that approach, the Board used the definition of a liability in FASB Concepts Statement No. 6, *Elements of Financial Statements*. The Board determined that future operating losses do not meet the definition of a liability.

In considering changes to Statement 121, the Board focused on the qualitative characteristics discussed in FASB Concepts Statement No. 2, *Qualitative Characteristicsof Accounting Information*. In particular, the Board determined that:

• Broadening the presentation of discontinued operations to include more disposal transactions provides investors, creditors, and others with decision-useful information that is relevant in assessing the effects of disposal transactions on the ongoing operations of an entity

• Eliminating inconsistencies from having two accounting models for long-lived assets to be disposed of by sale improves comparability in financial reporting among entities, enabling users to identify similarities in and differences between two sets of economic events.

This Statement also incorporates the guidance in FASB Concepts Statement No. 7, *Using Cash Flow Information and Present Value in Accounting Measurements,* for using present value techniques to measure fair value.

The Effective Date of This Statement

The provisions of this Statement are effective for financial statements issued for fiscal years beginning after December 15, 2001, and interim periods within those fiscal years, with early application encouraged. The provisions of this Statement generally are to be applied prospectively.

INTRODUCTION

1. This Statement addresses financial accounting and reporting for the impairment of long-lived assets and for long-lived assets to be disposed of. This Statement supersedes FASB Statement No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of.* However, this Statement retains the fundamental provisions of Statement 121 for (a) recognition and measurement of the impairment of long-lived assets to be held and used and (b) measurement of long-lived assets to be disposed of by sale.

2. This Statement supersedes the accounting and reporting provisions of APB Opinion No. 30, *Reporting the Results of Operations—Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions,* for segments of a business to be disposed of. However, this Statement retains the requirement of Opinion 30 to report discontinued operations separately from continuing operations and extends that reporting to a component of an entity that either has been disposed of (by sale, by abandonment, or in a distribution to owners) or is classified as held for sale. This Statement also amends ARB No. 51, *Consolidated Financial Statements,* to eliminate the exception to consolidation for a temporarily controlled subsidiary.

STANDARDS OF FINANCIAL ACCOUNTING AND REPORTING

Scope

3. Except as indicated in paragraphs 4 and 5, this Statement applies to recognized long-lived assets of an *entity* [1] to be held and used or to be disposed of, including (a) capital leases of lessees, (b) long-lived assets of lessors subject to operating leases, (c) proved oil and gas properties that are being accounted for using the successful-efforts method of accounting, [2] and (d) long-term prepaid assets. [3]

4. If a long-lived asset (or assets) is part of a group that includes other assets and liabilities not covered by this Statement, this Statement applies to the group. In those situations, the unit of accounting for the long-lived asset is its group. For a long-lived asset or assets to be held and used, that group (hereinafter referred to as an *asset group*) represents the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities. For a long-lived asset or assets to be disposed of by sale or otherwise, that group (hereinafter referred to as a *disposal group*) represents assets to be disposed of together as a group in a single transaction and liabilities directly associated with those assets that will be transferred in the transaction. [4] This Statement does not change generally accepted accounting principles applicable to those other individual assets (such as accounts receivable and inventory) and liabilities (such as accounts payable, long-term debt, and asset retirement obligations) not covered by this Statement that are included in such groups.

5. This Statement does not apply to (a) goodwill, (b) intangible assets not being amortized that are to be held and used, (c) servicing assets, (d) financial instruments, including investments in equity securities accounted for under the cost or equity method, (e) deferred policy acquisition costs, (f) deferred tax assets, and (g) unproved oil and gas properties that are being accounted for using the successful-efforts method of accounting. This Statement also does not apply to long-lived assets for which the accounting is prescribed by:

- FASB Statement No. 50, *Financial Reporting in the Record and Music Industry*
- FASB Statement No. 63, *Financial Reporting by Broadcasters*
- FASB Statement No. 86, *Accounting for the Costs of Computer Software to Be Sold, Leased, or Otherwise Marketed*
- FASB Statement No. 90, *Regulated Enterprises—Accounting for Abandonments and Disallowances of Plant Costs.*

6. Appendix C lists the accounting pronouncements affected by this Statement. Appendix D shows the status of FASB and Accounting Principles Board (APB) pronouncements that refer to impairment of long-lived assets, including those pronouncements that remain authoritative. [5]

Long-Lived Assets to Be Held and Used

Recognition and Measurement of an Impairment Loss

7. For purposes of this Statement, *impairment* is the condition that exists when the carrying amount of a long-lived asset (asset group) exceeds its fair value. An impairment loss shall be recognized only if the carrying amount of a long-lived asset (asset group) is not recoverable and exceeds its fair value. The carrying amount of a long-lived asset (asset group) is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset (asset group). That assessment shall be based on the carrying amount of the asset (asset group) at the date it is tested for recoverability, whether in use (paragraph 19) or under development (paragraph 20). An impairment loss shall be measured as the amount by which the carrying amount of a long-lived asset (asset group) exceeds its fair value.

When to Test a Long-Lived Asset for Recoverability

8. A long-lived asset (asset group) shall be tested for recoverability whenever events or changes in circumstances indicate that its carrying amount may not be recoverable. The following are examples of such events or changes in circumstances:

a. A significant decrease in the market price of a long-lived asset (asset group)

b. A significant adverse change in the extent or manner in which a long-lived asset (asset group) is being used or in its physical condition

c. A significant adverse change in legal factors or in the business climate that could affect the value of a long-lived asset (asset group), including an adverse action or assessment by a regulator

d. An accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of a long-lived asset (asset group)

e. A current-period operating or cash flow loss combined with a history of operating or cash flow losses or a projection or forecast that demonstrates continuing losses associated with the use of a long-lived asset (asset group)

f. A current expectation that, *more likely than not,* [6] a long-lived asset (asset group) will be sold or otherwise disposed of significantly before the end of its previously estimated useful life.

9. When a long-lived asset (asset group) is tested for recoverability, it also may be necessary to review depreciation estimates and method as required by FASB Statement No. 154, Accounting Changes and Error Corrections, or the amortization period as required by FASB Statement No. 142, *Goodwill and Other Intangible Assets*. [7] Any revision to the remaining useful life of a long-lived asset resulting from that review also shall be considered in developing estimates of future cash flows used to test the asset (asset group) for recoverability (paragraph 18). However, any change in the accounting method for the asset resulting from that review shall be made only after applying this Statement.

Grouping Long-Lived Assets to Be Held and Used

10. For purposes of recognition and measurement of an impairment loss, a long-lived asset or assets shall be grouped with other assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. However, an impairment loss, if any, that results from applying this Statement shall reduce only the carrying amount of a long-lived asset or assets of the group in accordance with paragraph 14

11. In limited circumstances, a long-lived asset (for example, a corporate headquarters facility) may not have identifiable cash flows that are largely independent of the cash flows of other assets and liabilities and of other asset groups. In those circumstances, the asset group for that long-lived asset shall include all assets and liabilities of the entity.

12. Goodwill shall be included in an asset group to be tested for impairment under this Statement only if the asset group is or includes a *reporting unit*.[8] Goodwill shall not be included in a lower-level asset group that includes only part of a reporting unit. Estimates of future cash flows used to test that lower-level asset group for recoverability shall not be adjusted for the effect of excluding goodwill from the group.

13. Other than goodwill, the carrying amounts of any assets (such as accounts receivable and inventory) and liabilities (such as accounts payable, long-term debt, and asset retirement obligations) not covered by this Statement that are included in an asset group shall be adjusted in accordance with other applicable generally accepted accounting principles prior to testing the asset group for recoverability.[9]

14. An impairment loss for an asset group shall reduce only the carrying amounts of a long-lived asset or assets of the group. The loss shall be allocated to the long-lived assets of the group on a pro rata basis using the relative carrying amounts of those assets, except that the loss allocated to an individual long-lived asset of the group shall not reduce the carrying amount of that asset below its fair value whenever that fair value is determinable without undue cost and effort. (Example 1 of Appendix A illustrates the allocation of an impairment loss for an asset group.)

New Cost Basis

15. If an impairment loss is recognized, the adjusted carrying amount of a long-lived asset shall be its new cost basis. For a depreciable long-lived asset, the new cost basis shall be depreciated (amortized) over the remaining useful life of that asset. Restoration of a previously recognized impairment loss is prohibited.

Estimates of Future Cash Flows Used to Test a Long-Lived Asset for Recoverability

16. Estimates of future cash flows used to test the recoverability of a long-lived asset (asset group) shall include only the future cash flows (cash inflows less associated cash outflows) that are directly associated with and that are expected to arise as a direct result of the use and eventual disposition of

the asset (asset group). Those estimates shall exclude interest charges that will be recognized as an expense when incurred.

17. Estimates of future cash flows used to test the recoverability of a long-lived asset (asset group) shall incorporate the entity's own assumptions about its use of the asset (asset group) and shall consider all available evidence. The assumptions used in developing those estimates shall be reasonable in relation to the assumptions used in developing other information used by the entity for comparable periods, such as internal budgets and projections, accruals related to incentive compensation plans, or information communicated to others. However, if alternative courses of action to recover the carrying amount of a long-lived asset (asset group) are under consideration or if a range is estimated for the amount of possible future cash flows associated with the likely course of action, the likelihood of those possible outcomes shall be considered. A probability-weighted approach may be useful in considering the likelihood of those possible outcomes. (Example 2 of Appendix A illustrates the use of that approach when alternative courses of action are under consideration.)

18. Estimates of future cash flows used to test the recoverability of a long-lived asset (asset group) shall be made for the remaining useful life of the asset (asset group) to the entity. The remaining useful life of an asset group shall be based on the remaining useful life of the primary asset of the group. For purposes of this Statement, the *primary asset* is the principal long-lived tangible asset being depreciated or intangible asset being amortized that is the most significant component asset from which the asset group derives its cash-flow-generating capacity.[10] Factors that an entity generally should consider in determining whether a long-lived asset is the primary asset of an asset group include the following: (a) whether other assets of the group would have been acquired by the entity without the asset, (b) the level of investment that would be required to replace the asset, and (c) the remaining useful life of the asset relative to other assets of the group. If the primary asset is not the asset of the group with the longest remaining useful life, estimates of future cash flows for the group should assume the sale of the group at the end of the remaining useful life of the primary asset.

19. Estimates of future cash flows used to test the recoverability of a long-lived asset (asset group) that is in use, including a long-lived asset (asset group) for which development is substantially complete, shall be based on the existing service potential of the asset (asset group) at the date it is tested. The service potential of a long-lived asset (asset group) encompasses its remaining useful life, cash-flow-generating capacity, and for tangible assets, physical output capacity. Those estimates shall include cash flows associated with future expenditures necessary to maintain the existing service potential of a long-lived asset (asset group), including those that replace the service potential of component parts of a long-lived asset (for example, the roof of a building) and component assets other than the primary asset of an asset group. Those estimates shall exclude cash flows associated with future capital expenditures that would increase the service potential of a long-lived asset (asset group).

20. Estimates of future cash flows used to test the recoverability of a long-lived asset (asset group) that is under development shall be based on the expected service potential of the asset (group) when

development is substantially complete. Those estimates shall include cash flows associated with all future expenditures necessary to develop a long-lived asset (asset group), including interest payments that will be capitalized as part of the cost of the asset (asset group). [11]

21. If a long-lived asset that is under development is part of an asset group that is in use, estimates of future cash flows used to test the recoverability of that group shall include the cash flows associated with future expenditures necessary to maintain the existing service potential of the group (paragraph 19) as well as the cash flows associated with all future expenditures necessary to substantially complete the asset that is under development (paragraph 20). (Example 3 of Appendix A illustrates that situation.)

Fair Value

22. [This paragraph has been deleted. See Status page.]

23. For long-lived assets (asset groups) that have uncertainties both in timing and amount, an expected present value technique will often be the appropriate technique with which to estimate fair value. (Example 4 of Appendix A illustrates the use of that technique.)

24. [This paragraph has been deleted. See Status page.]

[12-14] [These footnotes have been deleted. See Status page.]

Reporting and Disclosure

25. An impairment loss recognized for a long-lived asset (asset group) to be held and used shall be included in income from continuing operations before income taxes in the income statement of a business enterprise and in income from continuing operations in the statement of activities of a not-for-profit organization. If a subtotal such as “income from operations” is presented, it shall include the amount of that loss.

26. The following information shall be disclosed in the notes to the financial statements that include the period in which an impairment loss is recognized:

a. A description of the impaired long-lived asset (asset group) and the facts and circumstances leading to the impairment

b. If not separately presented on the face of the statement, the amount of the impairment loss and the caption in the income statement or the statement of activities that includes that loss

c. The method or methods for determining fair value (whether based on a quoted market price, prices for similar assets, or another valuation technique)

d. If applicable, the segment in which the impaired long-lived asset (asset group) is reported under FASB Statement No. 131, *Disclosures about Segments of an Enterprise and Related Information.*

Long-Lived Assets to Be Disposed Of Other Than by Sale

27. A long-lived asset to be disposed of other than by sale (for example, by abandonment, in an exchange measured based on the recorded amount of the nonmonetary asset relinquished, or in a distribution to owners in a spinoff) shall continue to be classified as held and used until it is disposed of. Paragraphs 7—26 shall apply while the asset is classified as held and used. If a long-lived asset is to be abandoned or distributed to owners in a spinoff together with other assets (and liabilities) as a group and that disposal group is a *component of anentity,* [15] paragraphs 41—44 shall apply to the disposal group at the date it is disposed of.

Long-Lived Asset to Be Abandoned

28. For purposes of this Statement, a long-lived asset to be abandoned is disposed of when it ceases to be used. If an entity commits to a plan to abandon a long-lived asset before the end of its previously estimated useful life, depreciation estimates shall be revised in accordance with paragraphs 19-22 of Statement 154 to reflect the use of the asset over its shortened useful life (refer to paragraph 9). [16] A long-lived asset that has been temporarily idled shall not be accounted for as if abandoned.

Long-Lived Asset to Be Exchanged or to Be Distributed to Owners in a Spinoff

29. For purposes of this Statement, a long-lived asset to be disposed of in an exchange measured based on the recorded amount of the nonmonetary asset relinquished or to be distributed to owners in a spinoff is disposed of when it is exchanged or distributed. If the asset (asset group) is tested for recoverability while it is classified as held and used, the estimates of future cash flows used in that test shall be based on the use of the asset for its remaining useful life, assuming that the disposal transaction will not occur. In addition to any impairment losses required to be recognized while the asset is classified as held and used, an impairment loss, if any, shall be recognized when the asset is disposed of if the carrying amount of the asset (disposal group) exceeds its fair value. [17]

Long-Lived Assets to Be Disposed Of by Sale

Recognition

30. A long-lived asset (disposal group) to be sold shall be classified as held for sale in the period in which all of the following criteria are met:

a. Management, having the authority to approve the action, commits to a plan to sell the asset (disposal group).

b. The asset (disposal group) is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such assets (disposal groups). (Examples 5—7 of Appendix A illustrate when that criterion would be met.)

c. An active program to locate a buyer and other actions required to complete the plan to sell the asset (disposal group) have been initiated.

d. The sale of the asset (disposal group) is probable, [18] and transfer of the asset (disposal group) is expected to qualify for recognition as a completed sale, within one year, except as permitted by paragraph 31. (Example 8 of Appendix A illustrates when that criterion would be met.)

e. The asset (disposal group) is being actively marketed for sale at a price that is reasonable in relation to its current fair value.

f. Actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

If at any time the criteria in this paragraph are no longer met (except as permitted by paragraph 31), a long-lived asset (disposal group) classified as held for sale shall be reclassified as held and used in accordance with paragraph 38.

31. Events or circumstances beyond an entity's control may extend the period required to complete the sale of a long-lived asset (disposal group) beyond one year. An exception to the one-year requirement in paragraph 30(d) shall apply in the following situations in which such events or circumstances arise:

a. If at the date an entity commits to a plan to sell a long-lived asset (disposal group) the entity reasonably expects that others (not a buyer) will impose conditions on the transfer of the asset (group) that will extend the period required to complete the sale and (1) actions necessary to respond to those conditions cannot be initiated until after a *firm purchase commitment* [19] is obtained and (2) a firm purchase commitment is probable within one year. (Example 9 of Appendix A illustrates that situation.)

b. If an entity obtains a firm purchase commitment and, as a result, a buyer or others unexpectedly impose conditions on the transfer of a long-lived asset (disposal group) previously classified as held for sale that will extend the period required to complete the sale and (1) actions necessary to respond to the conditions have been or will be timely initiated and (2) a favorable resolution of the delaying factors is expected. (Example 10 of Appendix A illustrates that situation.)

c. If during the initial one-year period, circumstances arise that previously were considered unlikely and, as a result, a long-lived asset (disposal group) previously classified as held for sale is not sold by the end of that period and (1) during the initial one-year period the entity initiated actions necessary to respond to the change in circumstances, (2) the asset (group) is being

actively marketed at a price that is reasonable given the change in circumstances, and (3) the criteria in paragraph 30 are met. (Example 11 of Appendix A illustrates that situation.)

32. A long-lived asset (disposal group) that is newly acquired and that will be sold rather than held and used shall be classified as held for sale at the acquisition date only if the one-year requirement in paragraph 30(d) is met (except as permitted by paragraph 31) and any other criteria in paragraph 30 that are not met at that date are probable of being met within a short period following the acquisition (usually within three months).

33. If the criteria in paragraph 30 are met after the balance sheet date but before the financial statements are issued or are available to be issued (appropriate date determined in accordance with FASB Statement No. 165, Subsequent Events), a long-lived asset shall continue to be classified as held and used in those financial statements when issued or available to be issued (appropriate date determined in accordance with Statement 165).[20] The information required by paragraph 47(a) shall be disclosed in the notes to the financial statements. If the asset (asset group) is tested for recoverability (on a held-and-used basis) as of the balance sheet date, the estimates of future cash flows used in that test shall consider the likelihood of possible outcomes that existed at the balance sheet date, including the assessment of the likelihood of the future sale of the asset. That assessment made as of the balance sheet date shall not be revised for a decision to sell the asset after the balance sheet date.[21] An impairment loss, if any, to be recognized shall be measured as the amount by which the carrying amount of the asset (asset group) exceeds its fair value at the balance sheet date.

Measurement

34. A long-lived asset (disposal group) classified as held for sale shall be measured at the lower of its carrying amount or fair value less cost to sell. If the asset (disposal group) is newly acquired, the carrying amount of the asset (disposal group) shall be established based on its fair value less cost to sell at the acquisition date. A long-lived asset shall not be depreciated (amortized) while it is classified as held for sale. Interest and other expenses attributable to the liabilities of a disposal group classified as held for sale shall continue to be accrued.

35. Costs to sell are the incremental direct costs to transact a sale, that is, the costs that result directly from and are essential to a sale transaction and that would not have been incurred by the entity had the decision to sell not been made. Those costs include broker commissions, legal and title transfer fees, and closing costs that must be incurred before legal title can be transferred. Those costs exclude expected future losses associated with the operations of a long-lived asset (disposal group) while it is classified as held for sale.[22] If the sale is expected to occur beyond one year as permitted in limited situations by paragraph 31, the cost to sell shall be discounted.

36. The carrying amounts of any assets that are not covered by this Statement, including goodwill, that are included in a disposal group classified as held for sale shall be adjusted in accordance with

other applicable generally accepted accounting principles prior to measuring the fair value less cost to sell of the disposal group. [23]

37. A loss shall be recognized for any initial or subsequent write-down to fair value less cost to sell. A gain shall be recognized for any subsequent increase in fair value less cost to sell, but not in excess of the cumulative loss previously recognized (for a write-down to fair value less cost to sell). The loss or gain shall adjust only the carrying amount of a long-lived asset, whether classified as held for sale individually or as part of a disposal group. A gain or loss not previously recognized that results from the sale of a long-lived asset (disposal group) shall be recognized at the date of sale.

Changes to a Plan of Sale

38. If circumstances arise that previously were considered unlikely and, as a result, an entity decides not to sell a long-lived asset (disposal group) previously classified as held for sale, the asset (disposal group) shall be reclassified as held and used. A long-lived asset that is reclassified shall be measured individually at the lower of its (a) carrying amount before the asset (disposal group) was classified as held for sale, adjusted for any depreciation (amortization) expense that would have been recognized had the asset (disposal group) been continuously classified as held and used, or (b) fair value at the date of the subsequent decision not to sell.

39. Any required adjustment to the carrying amount of a long-lived asset that is reclassified as held and used shall be included in income from continuing operations in the period of the subsequent decision not to sell. That adjustment shall be reported in the same income statement caption used to report a loss, if any, recognized in accordance with paragraph 45. If a component of an entity is reclassified as held and used, the results of operations of the component previously reported in discontinued operations in accordance with paragraph 43 shall be reclassified and included in income from continuing operations for all periods presented.

40. If an entity removes an individual asset or liability from a disposal group previously classified as held for sale, the remaining assets and liabilities of the disposal group to be sold shall continue to be measured as a group only if the criteria in paragraph 30 are met. Otherwise, the remaining long-lived assets of the group shall be measured individually at the lower of their carrying amounts or fair values less cost to sell at that date. Any long-lived assets that will not be sold shall be reclassified as held and used in accordance with paragraph 38.

Reporting Long-Lived Assets and Disposal Groups to Be Disposed Of

Reporting Discontinued Operations

41. For purposes of this Statement, a *component of an entity* comprises operations and cash flows that can be clearly distinguished, operationally and for financial reporting purposes, from the rest of the entity. A component of an entity may be a reportable segment or an operating segment (as those

terms are defined in paragraph 10 of Statement 131), a reporting unit (as that term is defined in Statement 142), a subsidiary, or an asset group (as that term is defined in paragraph 4).

42. The results of operations of a component of an entity that either has been disposed of or is classified as held for sale shall be reported in discontinued operations in accordance with paragraph 43 if both of the following conditions are met: (a) the operations and cash flows of the component have been (or will be) eliminated from the ongoing operations of the entity as a result of the disposal transaction and (b) the entity will not have any significant continuing involvement in the operations of the component after the disposal transaction. (Examples 12-15 of Appendix A illustrate disposal activities that do or do not qualify for reporting as discontinued operations.)

43. In a period in which a component of an entity either has been disposed of or is classified as held for sale, the income statement of a business enterprise (or statement of activities of a not-for-profit organization) for current and prior periods shall report the results of operations of the component, including any gain or loss recognized in accordance with paragraph 37, in discontinued operations. The results of operations of a component classified as held for sale shall be reported in discontinued operations in the period(s) in which they occur. The results of discontinued operations, less applicable income taxes (benefit), shall be reported as a separate component of income before extraordinary items (if applicable). For example, the results of discontinued operations may be reported in the income statement of a business enterprise as follows:

Income from continuing operations before income taxes	$XXXX	
Income taxes	XXX	
Income from continuing operations[24]		$XXXX
Discontinued operations (Note X)		
Loss from operations of discontinued Component X (including loss on disposal of $XXX)		XXXX
Income tax benefit		XXXX
Loss on discontinued operations		XXXX
Net income		**$XXXX**

A gain or loss recognized on the disposal shall be disclosed either on the face of the income statement or in the notes to the financial statements (paragraph 47(b)).

44. Adjustments to amounts previously reported in discontinued operations that are directly related to the disposal of a component of an entity in a prior period shall be classified separately in the current period in discontinued operations. The nature and amount of such adjustments shall be disclosed. Examples of circumstances in which those types of adjustments may arise include the following:

a.

The resolution of contingencies that arise pursuant to the terms of the disposal transaction, such as the resolution of purchase price adjustments and indemnification issues with the purchaser

b.

The resolution of contingencies that arise from and that are directly related to the operations of the component prior to its disposal, such as environmental and product warranty obligations retained by the seller

c.

The settlement of employee benefit plan obligations (pension, postemployment benefits other than pensions, and other postemployment benefits), provided that the settlement is directly related to the disposal transaction. [25]

Reporting Disposal Gains or Losses in Continuing Operations

45. A gain or loss recognized on the sale of a long-lived asset (disposal group) that is not a component of an entity shall be included in income from continuing operations before income taxes in the income statement of a business enterprise and in income from continuing operations in the statement of activities of a not-for-profit organization. If a subtotal such as “income from operations” is presented, it shall include the amounts of those gains or losses.

Reporting a Long-Lived Asset or Disposal Group Classified as Held for Sale

46. A long-lived asset classified as held for sale shall be presented separately in the statement of financial position. The assets and liabilities of a disposal group classified as held for sale shall be presented separately in the asset and liability sections, respectively, of the statement of financial position. Those assets and liabilities shall not be offset and presented as a single amount. The major classes of assets and liabilities classified as held for sale shall be separately disclosed either on the face of the statement of financial position or in the notes to financial statements (paragraph 47(a)).

Disclosure

47. The following information shall be disclosed in the notes to the financial statements that cover the period in which a long-lived asset (disposal group) either has been sold or is classified as held for sale:

a. A description of the facts and circumstances leading to the expected disposal, the expected manner and timing of that disposal, and, if not separately presented on the face of the statement, the carrying amount(s) of the major classes of assets and liabilities included as part of a disposal group

b. The gain or loss recognized in accordance with paragraph 37 and if not separately presented on the face of the income statement, the caption in the income statement or the statement of activities that includes that gain or loss

c. If applicable, amounts of revenue and pretax profit or loss reported in discontinued operations

d. If applicable, the segment in which the long-lived asset (disposal group) is reported under Statement 131.

48. If either paragraph 38 or paragraph 40 applies, a description of the facts and circumstances leading to the decision to change the plan to sell the long-lived asset (disposal group) and its effect on the results of operations for the period and any prior periods presented shall be disclosed in the notes to financial statements that include the period of that decision.

Effective Date and Transition

49. Except as specified in paragraphs 50 and 51, the provisions of this Statement shall be effective for financial statements issued for fiscal years beginning after December 15, 2001, and interim periods within those fiscal years. Early application is encouraged. Initial application of this Statement shall be as of the beginning of an entity's fiscal year. That is, if the Statement is initially applied prior to the effective date and during an interim period other than the first interim period, all prior interim periods of that fiscal year shall be restated. Restatement of previously issued annual financial statements is not permitted.[26] However, previously issued statements of financial position presented for comparative purposes shall be reclassified to reflect application of the provisions of paragraph 46 of this Statement for reporting disposal groups classified as held for sale.

50. The provisions of this Statement for long-lived assets (disposal groups) to be disposed of by sale or otherwise (paragraphs 27—45 and paragraphs 47 and 48) shall be effective for disposal activities initiated by an entity's commitment to a plan after the effective date of this Statement or after it is initially applied.

51. Except as provided in the following sentence, long-lived assets (disposal groups) classified as held for disposal as a result of disposal activities that were initiated prior to this Statement's initial application shall continue to be accounted for in accordance with the prior pronouncement (Statement 121 or Opinion 30) applicable for that disposal. If the criteria in paragraph 30 of this Statement are not met by the end of the fiscal year in which this Statement is initially applied, the related long-lived assets shall be reclassified as held and used in accordance with paragraph 38 of this Statement.

The provisions of this Statement need not be applied to immaterial items.

This Statement was adopted by the unanimous vote of the six members of the Financial Accounting Standards Board:

This Statement was adopted by the unanimous vote of the six members of the Financial Accounting Standards Board:

144 Edmund L. Jenkins, *Chairman*

G. Michael Crooch

John M. Foster

Gary S. Schieneman

Edward W. Trott

John K. Wulff

Appendix A: IMPLEMENTATION GUIDANCE

Introduction

A1. This appendix illustrates application of some of the provisions of this Statement in certain specific situations. The relevant paragraphs of this Statement are identified in the parenthetical notes. The examples do not address all possible situations or applications of this Statement. This appendix is an integral part of the standards provided in this Statement.

Example 1—Allocating an Impairment Loss

A2. This example illustrates the allocation of an impairment loss to the long-lived assets of an asset group (paragraph 14).

A3. An entity owns a manufacturing facility that together with other assets is tested for recoverability as a group. In addition to long-lived assets (Assets A—D), the asset group includes inventory, which is reported at the lower of cost or market in accordance with ARB No. 43, Chapter 4, "Inventory Pricing," as amended by FASB Statements No. 133, *Accounting for Derivative Instruments and Hedging Activities*, and No. 151, *Inventory Costs*, and other current assets and liabilities that are not covered by this Statement. The $2.75 million aggregate carrying amount of the asset group is not recoverable and exceeds its fair value by $600,000. In accordance with paragraph 14, the impairment loss of $600,000 would be allocated as shown below to the long-lived assets of the group.

Asset Group (in $ 000s)	Carrying Amount	Pro Rata Allocation Factor	Allocation of Impairment (Loss)	Adjusted Carrying Amount
Current assets	$400	—	—	$400
Liabilities	(150)	—	—	(150)
Long-lived assets:				
Asset A	590	24%	$(144)	446
Asset B	780	31	(186)	594
Asset C	950	38	(228)	722
Asset D	180	7	(42)	138
Subtotal—long-lived assets	2,500	100	(600)	1,900

Asset Group	Carrying Amount	Pro Rata Allocation Factor	Allocation of Impairment (Loss)	Adjusted Carrying Amount
Total	$2,750	100%	$(600)	$2,150

A4 An entity owns a manufacturing facility that together with other assets is tested for recoverability as a group. In addition to long-lived assets (Assets A—D), the asset group includes inventory, which is reported at the lower of cost or market in accordance with ARB No. 43, Chapter 4, “Inventory Pricing,” and other current assets and liabilities that are not covered by this Statement. The $2.75 million aggregate carrying amount of the asset group is not recoverable and exceeds its fair value by $600,000. In accordance with paragraph 14, the impairment loss of $600,000 would be allocated as shown below to the long-lived assets of the group.

Long-Lived Assets of Asset Group (in $ 000s)	Adjusted Carrying Amount	Pro Rata Reallocation Factor	Reallocation of Excess Impairment (Loss)	Adjusted Carrying Amount after Reallocation
Asset A	$446	38%	$(38)	$408
Asset B	594	50	(50)	544
Asset D	138	12	(12)	126
Subtotal	1,178	100%	(100)	1,078
Asset C	722		100	822
Total—long-lived assets	$1,900		$ 0	$1,900

A4. If the fair value of an individual long-lived asset of an asset group is determinable without undue cost and effort and exceeds the adjusted carrying amount of that asset after an impairment loss is allocated initially, the excess impairment loss initially allocated to that asset would be reallocated to the other long-lived assets of the group. For example, if the fair value of Asset C is $822,000, the excess impairment loss of $100,000 initially allocated to that asset (based on its adjusted carrying amount of $722,000) would be reallocated as shown below to the other long-lived assets of the group on a pro rata basis using the relative adjusted carrying amounts of those assets.

Long-Lived Assets of Asset Group (in $ 000s)	Adjusted Carrying Amount	Pro Rata Reallocation Factor	Reallocation of Excess Impairment (Loss)	Adjusted Carrying Amount after Reallocation
Asset A	$446	38%	$(38)	$408
Asset B	594	50	(50)	544
Asset D	138	12	(12)	126
Subtotal	1,178	**100%**	(100)	1,078
Asset C	722		100	822
Total—long-lived assets	**$1,900**		**$ 0**	**$1,900**

Example 2—Probability-Weighted Cash Flows

A5. This example illustrates the use of a probability-weighted approach for developing estimates of future cash flows used to test a long-lived asset for recoverability when alternative courses of action are under consideration (paragraph 17).

A6. At December 31, 20X2, a manufacturing facility with a carrying amount of $48 million is tested for recoverability. At that date, 2 courses of action to recover the carrying amount of the facility are under consideration—sell in 2 years or sell in 10 years (at the end of its remaining useful life).

A7. As indicated in the following table, the possible cash flows associated with each of those courses of action are $41 million and $48.7 million, respectively. They are developed based on entity-specific assumptions about future sales (volume and price) and costs in varying scenarios that consider the likelihood that existing customer relationships will continue, changes in economic (market) conditions, and other relevant factors.

Course of Action (in $ millions)	Cash Flows (Use)	Cash Flows (Disposition)	Cash Flows (Total)	Probability Assessment	Possible Cash Flows(Probability-Weighted)
Sell in 2 years	$ 8	$30	$38	20%	$ 7.6
	11	30	41	50	20.5
	13	30	43	30	12.9
					$41.0
Sell in 10 years	36	1	37	20%	$7.4
	48	1	49	50	24.5
	55	1	56	30	16.8
					$48.7

A8. As further indicated in the following table, there is a 60 percent probability that the facility will be sold in 2 years and a 40 percent probability that the facility will be sold in 10 years.[27] As shown, the expected cash flows are $44.1 million (undiscounted). Therefore, the carrying amount of the facility of $48 million would not be recoverable.

Course of Action (in $ millions)	Possible Cash Flows (Probability-Weighted)	Probability Assessment (Course of Action)	Expected Cash Flows (Undiscounted)
Sell in 2 years	$41.0	60%	$24.6

Course of Action	Possible Cash Flows (Probability-Weighted)	Probability Assessment (Course of Action)	Expected Cash Flows (Undiscounted)
Sell in 10 years	48.7	40	19.5
			$44.1

Example 3 —Estimates of Future Cash Flows Used to Test an Asset Group for Recoverability

A9. A long-lived asset that is under development may be part of an asset group that is in use. In that situation, estimates of future cash flows used to test the recoverability of that group shall include the cash flows associated with future expenditures necessary to maintain the existing service potential of the group as well as the cash flows associated with future expenditures necessary to substantially complete the asset that is under development (paragraph 21).

A10. An entity engaged in mining and selling phosphate estimates future cash flows from its commercially minable phosphate deposits in order to test the recoverability of the asset group that includes the mine and related long-lived assets (plant and equipment). Deposits from the mined rock must be processed in order to extract the phosphate. As the active mining area expands along the geological structure of the mine, a new processing plant is constructed near the production area. Depending on the size of the mine, extracting the minable deposits may require building numerous processing plants over the life of the mine. In testing the recoverability of the mine and related long-lived assets, the estimates of future cash flows from its commercially minable phosphate deposits would include cash flows associated with future expenditures necessary to build all of the required processing plants.

Example 4—Expected Present Value Technique

A11. This example illustrates the application of an expected present value technique to estimate the fair value of a long-lived asset in an impairment situation. It is based on the facts provided for the manufacturing facility in Example 2.

[28-29] [These footnotes have been deleted. See Status page]

A12. [This paragraph has been deleted. See Status page.]

A13. The following table shows by year the computation of the expected cash flows used in the measurement. They reflect the possible cash flows (probability-weighted) used to test the manufacturing facility for recoverability in Example 2, adjusted for relevant marketplace assumptions, which increases the possible cash flows in total by approximately 15 percent.

Year	Possible Cash Flows (Market)	Probability Assessment	Expected Cash Flows (Undiscounted)

	(in $ millions)		
1	$4.6	20%	$ .9
	6.3	50	3.2
	7.5	30	2.3
			$6.4
2	$4.6	20%	$ .9
	6.3	50	3.2
	7.5	30	2.3
			$6.4
3	$4.3	20%	$ .9
	5.8	50	2.9
	6.7	30	2.0
			$5.8
4	$4.3	20%	$ .9
	5.8	50	2.9
	6.7	30	2.0
			$5.8
5	$4.0	20%	$ .8
	5.4	50	2.7
	6.4	30	1.9
			$5.4
6	$4.0	20%	$ .8
	5.4	50	2.7
	6.4	30	1.9
			$5.4
7	$3.9	20%	$ .8
	5.1	50	2.6
	5.6	30	1.7
			$5.1
8	$3.9	20%	$ .8
	5.1	50	2.6
	5.6	30	1.7
			$5.1
9	$3.9	20%	$ .8
	5.0	50	2.5
	5.5	30	1.7
			$5.0

10	$4.9	20%	$1.0
	6.0	50	3.0
	6.5	30	2.0
			$6.0

A14. The following table shows the computation of the expected present value; that is, the sum of the present values of the expected cash flows by year, each discounted at a risk-free interest rate determined from the yield curve for U.S. Treasury instruments.[29a] As shown, the expected present value is $42.3 million, which is less than the carrying amount of $48 million. In accordance with paragraph 7, the entity would recognize an impairment loss of $5.7 million.

Year (in $ millions)	Expected Cash Flows (Undiscounted)	Risk-Free Rate of Interest	Expected Present Value
1	$6.4	5.0%	$6.1
2	6.4	5.1	5.8
3	5.8	5.2	5.0
4	5.8	5.4	4.7
5	5.4	5.6	4.1
6	5.4	5.8	3.9
7	5.1	6.0	3.4
8	5.1	6.2	3.2
9	5.0	6.4	2.9
10	6.0	6.6	3.2
			$42.3

Examples 5—7—Plan-of-Sale Criterion 30(b)

A15. To qualify for classification as held for sale, a long-lived asset (disposal group) must be available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such assets (disposal groups) (paragraph 30(b)). A long-lived asset (disposal group) is available for immediate sale if an entity currently has the intent and ability to transfer the asset (disposal group) to a buyer in its present condition. Examples 5—7 illustrate situations in which the criterion in paragraph 30(b) would or would not be met.

Example 5

A16. An entity commits to a plan to sell its headquarters building and has initiated actions to locate a buyer.

a. The entity intends to transfer the building to a buyer after it vacates the building. The time necessary to vacate the building is usual and customary for sales of such assets. The criterion in

paragraph 30(b) would be met at the plan commitment date.

b. The entity will continue to use the building until construction of a new headquarters building is completed. The entity does not intend to transfer the existing building to a buyer until after construction of the new building is completed (and it vacates the existing building). The delay in the timing of the transfer of the existing building imposed by the entity (seller) demonstrates that the building is not available for immediate sale. The criterion in paragraph 30(b) would not be met until construction of the new building is completed, even if a firm purchase commitment for the future transfer of the existing building is obtained earlier.

Example 6

A17. An entity commits to a plan to sell a manufacturing facility and has initiated actions to locate a buyer. At the plan commitment date, there is a backlog of uncompleted customer orders.

a. The entity intends to sell the manufacturing facility with its operations. Any uncompleted customer orders at the sale date would transfer to the buyer. The transfer of uncompleted customer orders at the sale date will not affect the timing of the transfer of the facility. The criterion in paragraph 30(b) would be met at the plan commitment date.

b. The entity intends to sell the manufacturing facility, but without its operations. The entity does not intend to transfer the facility to a buyer until after it ceases all operations of the facility and eliminates the backlog of uncompleted customer orders. The delay in the timing of the transfer of the facility imposed by the entity (seller) demonstrates that the facility is not available for immediate sale. The criterion in paragraph 30(b) would not be met until the operations of the facility cease, even if a firm purchase commitment for the future transfer of the facility is obtained earlier.

Example 7

A18. An entity acquires through foreclosure a real estate property that it intends to sell.

a. The entity does not intend to transfer the property to a buyer until after it completes renovations to increase its sales value. The delay in the timing of the transfer of the property imposed by the entity (seller) demonstrates that the property is not available for immediate sale. The criterion in paragraph 30(b) would not be met until the renovations are completed.

b. After the renovations are completed and the property is classified as held for sale but before a firm purchase commitment is obtained, the entity becomes aware of environmental damage requiring remediation. The entity still intends to sell the property. However, the entity does not have the ability to transfer the property to a buyer until after the remediation is completed. The delay in the timing of the transfer of the property imposed by others before a firm purchase commitment is obtained demonstrates that the property is not available for immediate sale. The criterion in paragraph 30(b) would not continue to be met. The property would be reclassified as held and used in accordance with paragraph 39.

Example 8—Plan-of-Sale Criterion 30(d)

A19. To qualify for classification as held for sale, the sale of a long-lived asset (disposal group) must be probable, and transfer of the asset (disposal group) must be expected to qualify for recognition as a completed sale, within one year (paragraph 30(d)). That criterion would not be met if, for example:

a. An entity that is a commercial leasing and finance company is holding for sale or lease equipment that has recently come off lease and the ultimate form of a future transaction (sale or lease) has not yet been determined.

b. An entity commits to a plan to "sell" a property that is in use, and the transfer of the property will be accounted for as a sale-leaseback through which the seller-lessee will retain more than a minor portion of the use of the property. The property would continue to be classified as held and used and paragraphs 7—26 would apply. [30]

Examples 9—11—Exceptions to Plan-of-Sale Criterion 30(d)

A20. An exception to the one-year requirement in paragraph 30(d) applies in limited situations in which the period required to complete the sale of a long-lived asset (disposal group) will be (or has been) extended by events or circumstances beyond an entity's control and certain conditions are met (paragraph 31). Examples 9—11 illustrate those situations.

Example 9

A21. An entity in the utility industry commits to a plan to sell a disposal group that represents a significant portion of its regulated operations. The sale will require regulatory approval, which could extend the period required to complete the sale beyond one year. Actions necessary to obtain that approval cannot be initiated until after a buyer is known and a firm purchase commitment is obtained. However, a firm purchase commitment is probable within one year. In that situation, the conditions in paragraph 31(a) for an exception to the one-year requirement in paragraph 30(d) would be met.

Example 10

A22. An entity commits to a plan to sell a manufacturing facility in its present condition and classifies the facility as held for sale at that date. After a firm purchase commitment is obtained, the buyer's inspection of the property identifies environmental damage not previously known to exist. The entity is required by the buyer to remediate the damage, which will extend the period required to complete the sale beyond one year. However, the entity has initiated actions to remediate the damage, and satisfactory remediation of the damage is probable. In that situation, the conditions in paragraph 31(b) for an exception to the one-year requirement in paragraph 30(d) would be met.

Example 11

A23. An entity commits to a plan to sell a long-lived asset and classifies the asset as held for sale at that date.

a. During the initial one-year period, the market conditions that existed at the date the asset was classified initially as held for sale deteriorate and, as a result, the asset is not sold by the end of that period. During that period, the entity actively solicited but did not receive any reasonable offers to purchase the asset and, in response, reduced the price. The asset continues to be actively marketed at a price that is reasonable given the change in market conditions, and the criteria in paragraph 30 are met. In that situation, the conditions in paragraph 31(c) for an exception to the one-year requirement in paragraph 30(d) would be met. At the end of the initial one-year period, the asset would continue to be classified as held for sale.

b. During the following one-year period, market conditions deteriorate further, and the asset is not sold by the end of that period. The entity believes that the market conditions will improve and has not further reduced the price of the asset. The asset continues to be held for sale, but at a price in excess of its current fair value. In that situation, the absence of a price reduction demonstrates that the asset is not available for immediate sale as required by the criterion in paragraph 30(b). In addition, the criterion in paragraph 30(e) requires that an asset be marketed at a price that is reasonable in relation to its current fair value. Therefore, the conditions in paragraph 31(c) for an exception to the one-year requirement in paragraph 30(d) would not be met. The asset would be reclassified as held and used in accordance with paragraph 38.

Examples 12—15—Reporting Discontinued Operations

A24. The results of operations of a component of an entity that either has been disposed of or is classified as held for sale shall be reported in discontinued operations if (a) the operations and cash flows of the component have been (or will be) eliminated from the ongoing operations of the entity as a result of the disposal transaction and (b) the entity will not have any significant continuing involvement in the operations of the component after the disposal transaction (paragraph 42). Examples 12—15 illustrate disposal activities that do or do not qualify for reporting as discontinued operations.

Example 12

A25 An entity that manufactures and sells consumer products has several product groups, each with different product lines and brands. For that entity, a product group is the lowest level at which the operations and cash flows can be clearly distinguished, operationally and for financial reporting purposes, from the rest of the entity. Therefore, each product group is a component of the entity.

A26. The entity has experienced losses associated with certain brands in its beauty care products group.

a. The entity decides to exit the beauty care business and commits to a plan to sell the product group with its operations. The product group is classified as held for sale at that date. The

operations and cash flows of the product group will be eliminated from the ongoing operations of the entity as a result of the sale transaction, and the entity will not have any continuing involvement in the operations of the product group after it is sold. In that situation, the conditions in paragraph 42 for reporting in discontinued operations the operations of the product group while it is classified as held for sale would be met.

b. The entity decides to remain in the beauty care business but will discontinue the brands with which the losses are associated. Because the brands are part of a larger cash-flow-generating product group and, in the aggregate, do not represent a group that on its own is a component of the entity, the conditions in paragraph 42 for reporting in discontinued operations the losses associated with the brands that are discontinued would not be met.

Example 13

A27. An entity that is a franchiser in the quick-service restaurant business also operates company-owned restaurants. For that entity, an individual company-owned restaurant is the lowest level at which the operations and cash flows can be clearly distinguished, operationally and for financial reporting purposes, from the rest of the entity. Therefore, each company-owned restaurant is a component of the entity.

a. The entity has experienced losses on its company-owned restaurants in one region. The entity decides to exit the quick-service restaurant business in that region and commits to a plan to sell the restaurants in that region. The restaurants are classified as held for sale at that date. The operations and cash flows of the restaurants in that region will be eliminated from the ongoing operations of the entity as a result of the sale transaction, and the entity will not have any continuing involvement in the operations of the restaurants after they are sold. In that situation, the conditions in paragraph 42 for reporting in discontinued operations the operations of the restaurants while they are classified as held for sale would be met.

b. Based on its evaluation of the ownership mix of its system-wide restaurants in certain markets, the entity commits to a plan to sell its company-owned restaurants in one region to an existing franchisee. The restaurants are classified as held for sale at that date. Although each company-owned restaurant, on its own, is a component of the entity, through the franchise agreement, the entity will (1) receive franchise fees determined, in part, based on the future revenues of the restaurants and (2) have significant continuing involvement in the operations of the restaurants after they are sold. In that situation, the conditions in paragraph 42 for reporting in discontinued operations the operations of the restaurants would not be met.

Example 14

A28. An entity that manufactures sporting goods has a bicycle division that designs, manufactures, markets, and distributes bicycles. For that entity, the bicycle division is the lowest level at which the operations and cash flows can be clearly distinguished, operationally and for financial reporting purposes, from the rest of the entity. Therefore, the bicycle division is a component of the entity.

A29. The entity has experienced losses in its bicycle division resulting from an increase in manufacturing costs (principally labor costs).

a. The entity decides to exit the bicycle business and commits to a plan to sell the division with its operations. The bicycle division is classified as held for sale at that date. The operations and cash flows of the division will be eliminated from the ongoing operations of the entity as a result of the sale transaction, and the entity will not have any continuing involvement in the operations of the division after it is sold. In that situation, the conditions in paragraph 42 for reporting in discontinued operations the operations of the division while it is classified as held for sale would be met.

b. The entity decides to remain in the bicycle business but will outsource the manufacturing operations and commits to a plan to sell the related manufacturing facility. The facility is classified as held for sale at that date. Because the manufacturing facility is part of a larger cash-flow-generating group (the bicycle division), and on its own is not a component of the entity, the conditions in paragraph 42 for reporting in discontinued operations the operations (losses) of the manufacturing facility would not be met. (Those conditions also would not be met if the manufacturing facility on its own was a component of the entity because the decision to outsource the manufacturing operations of the division will not eliminate the operations and cash flows of the division [and its bicycle business] from the ongoing operations of the entity.)

Example 15

A30. An entity owns and operates retail stores that sell household goods. For that entity, each store is the lowest level at which the operations and cash flows can be clearly distinguished, operationally and for financial reporting purposes, from the rest of the entity. Therefore, each store is a component of the entity.

A31. To expand its retail store operations in one region, the entity decides to close two of its retail stores and open a new “superstore” in that region. The new superstore will continue to sell the household goods previously sold through the two retail stores as well as other related products not previously sold. Although each retail store on its own is a component of the entity, the operations and cash flows from the sale of household goods previously sold through the two retail stores in that region will not be eliminated from the ongoing operations of the entity. In that situation, the conditions in paragraph 42 for reporting in discontinued operations the operations of the stores would not be met.

Appendix B: BACKGROUND INFORMATION AND BASIS FOR CONCLUSIONS

Introduction

B1. This appendix summarizes considerations that Board members deemed significant in reaching the conclusions in this Statement. It includes the reasons for accepting certain approaches and rejecting others. Individual Board members gave greater weight to some factors than to others. This

appendix also summarizes the considerations that Board members deemed significant in reaching the conclusions in FASB Statement No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of,* that are still relevant.

Background

B2. Statement 121, which was issued in 1995, established accounting standards for the impairment of long-lived assets to be held and used, including certain identifiable intangibles and goodwill related to those assets. It also established accounting standards for long-lived assets to be disposed of, including certain identifiable intangibles, that were not covered by APB Opinion No. 30, *Reporting the Results of Operations—Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions*. Opinion 30 established, among other things, accounting and reporting standards for segments of a business to be disposed of. Paragraph 13 of Opinion 30 defined a segment of a business as "a component of an entity whose activities represent a separate major line of business or class of customer."

B3. After the issuance of Statement 121, significant differences existed in the accounting for long-lived assets to be disposed of covered by that Statement and by Opinion 30. The principal differences related to measurement and presentation.

B4. Under Statement 121, a long-lived asset classified as held for disposal was measured at the lower of its carrying amount or fair value less cost to sell, which excludes expected future operating losses that marketplace participants would not similarly consider in their estimates of the fair value less cost to sell of a long-lived asset classified as held for disposal. The gain or loss recognized on the disposal and any related results of operations were reported in continuing operations and separately disclosed in the notes to the financial statements.

B5. Under Opinion 30, a segment of a business to be disposed of was measured at the lower of its carrying amount or net realizable value, adjusted for expected future operating losses of the segment held for disposal. The accrual of future operating losses as previously required under Opinion 30 generally is inappropriate under the Board's conceptual framework, which was developed after the issuance of Opinion 30. The gain or loss recognized on the disposal and the related results of operations were reported in discontinued operations, separately from continuing operations. Under other accounting pronouncements, the measurement but not reporting requirements of Opinion 30 were extended to certain other disposal transactions.

B6. In Statement 121, the Board acknowledged that inconsistency in accounting for long-lived assets to be disposed of. However, at that time, the Board decided not to expand the scope of that Statement to reconsider the requirements of Opinion 30.

B7. Soon after the issuance of Statement 121, the Emerging Issues Task Force (EITF) and others identified significant issues related to the implementation of that Statement. They asked the Board to

address those issues, including:

a. How to apply the provisions for long-lived assets to be held and used to a long-lived asset that an entity expects to sell or otherwise dispose of if the entity has not yet committed to a plan to sell or otherwise dispose of the asset

b. How to determine an "indicated impairment of value" of a long-lived asset to be exchanged for a similar productive long-lived asset or to be distributed to owners

c. What criteria must be met to classify a long-lived asset as held for sale and how to account for the asset if those criteria are met after the balance sheet date but before issuance of the financial statements

d. How to account for a long-lived asset classified as held for sale if the plan to sell the asset changes

e. How to display in the income statement the results of operations while a long-lived asset or a group of long-lived assets with separately identifiable operations is classified as held for sale

f. How to display in the statement of financial position a long-lived asset or a group of long-lived assets and liabilities classified as held for sale.

B8. In August 1996, the Board added this project to its agenda to (a) develop a single accounting model, based on the framework established in Statement 121, for long-lived assets to be disposed of by sale and (b) address significant implementation issues.

B9. In June 2000, the Board issued an Exposure Draft of a proposed Statement, *Accounting for the Impairment or Disposal of Long-Lived Assets and for Obligations Associated with Disposal Activities*. The Board received comment letters from 53 respondents to the Exposure Draft. In January 2001, the Board held a public roundtable meeting with some of those respondents to discuss significant issues raised in comment letters. The Board considered respondents' comments during its redeliberations of the issues addressed by the Exposure Draft in public meetings in 2001.

Scope

B10. Except as discussed in paragraphs B11—B14, this Statement applies to recognized long-lived assets to be held and used or to be disposed of. If a long-lived asset is part of a group that includes other assets and liabilities not covered by this Statement, this Statement applies to its asset group or disposal group, as discussed in paragraph 4 of this Statement.

B11. Long-lived assets excluded from the scope of Statement 121 also are excluded from the scope of this Statement. The Board concluded that the objectives of this project could be achieved without reconsidering the accounting for the impairment or disposal of those long-lived assets. Accordingly, this Statement does not apply to (a) financial assets, (b) long-lived assets for which the accounting is prescribed in other broadly applicable accounting pronouncements (such as deferred tax assets), and (c) long-lived assets for which the accounting is prescribed in accounting pronouncements that apply

to certain specialized industries (including the record and music, motion picture, broadcasting, software, and insurance industries).

B12. The scope of Statement 121 included goodwill related to an asset group but not goodwill related to a disposal group. Goodwill not covered by Statement 121 was covered by APB Opinion No. 17, *Intangible Assets*. The Exposure Draft would have included in its scope goodwill related to an asset group, and would have amended Opinion 17 to also include in its scope goodwill related to a disposal group. However, after issuance of the Exposure Draft, the Board decided to reconsider the accounting for goodwill and intangible assets in its project on accounting for business combinations. In that project, the Board decided that goodwill and certain other intangible assets should no longer be amortized and should be tested for impairment in a manner different from how the long-lived assets covered by this Statement are tested for impairment. FASB Statement No. 142, *GoodwillandOther Intangible Assets,* addresses the accounting for the impairment of those assets. It also addresses the allocation of goodwill to a disposal group that constitutes a business. Accordingly, this Statement does not apply to goodwill or to intangible assets not being amortized.

B13. Statement 121 did not address the accounting for obligations associated with the disposal of a long-lived asset (disposal group) or for the results of operations during the holding period of the asset (disposal group). Instead, Statement 121 referred to EITF Issue No. 94-3, “Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring).” Issue 94-3 provides guidance on recognition of liabilities for costs associated with restructuring and related disposal activities, including certain employee termination benefits and lease termination costs. During its deliberations of the Exposure Draft, the Board noted that liabilities are recognized under Issue 94-3 even though some of those items might not meet the definition of a liability set forth in the Board’s conceptual framework. Because the types of costs covered by Issue 94-3 often are associated with the disposal of long-lived assets, the Board decided to reconsider the guidance in Issue 94-3 and include obligations associated with a disposal activity in the scope of this project.

B14. The Exposure Draft proposed significant changes to the guidance in Issue 94-3. Many respondents to the Exposure Draft disagreed with those proposed changes. Some of those respondents noted potential inconsistencies between the accounting requirements proposed in the Exposure Draft and the accounting requirements of other existing accounting pronouncements. Other respondents said that the Board should not reconsider the guidance in Issue 94-3 until after it undertakes a full conceptual reconsideration of all liabilities. Yet other respondents said that the Board should not reconsider that guidance at all, noting that SEC Staff Accounting Bulletin No. 100, *Restructuring andImpairment Charges,* now provides additional guidance for applying Issue 94-3. To avoid delaying the issuance of guidance on the accounting for the impairment or disposal of long-lived assets to address those issues, the Board decided to remove obligations associated with a disposal activity from the scope of this Statement. The Board plans to redeliberate those issues addressed by the Exposure Draft in a separate project.

Long-Lived Assets to Be Held and Used

Recognition of an Impairment Loss

B15. This Statement retains the requirement of Statement 121 to recognize an impairment loss only if the carrying amount of a long-lived asset (asset group) is not recoverable from its undiscounted cash flows and exceeds its fair value. In Statement 121, the Board decided for practical reasons to require an undiscounted cash flows recoverability test. In reaching that decision, the Board considered but rejected alternative criteria for recognition of an impairment loss. Specifically, the Board considered (a) an economic (fair value) criterion, (b) a permanence criterion, and (c) a probability criterion. Those criteria were discussed in paragraphs 60-62 of Statement 121:

> The economic criterion calls for loss recognition whenever the carrying amount of an asset exceeds the asset's fair value. It is an approach that would require continuous evaluation for impairment of long-lived assets similar to the ongoing lower-of-cost-or-market measurement of inventory. The economic criterion is based on the measurement of the asset. Using the same measure for recognition and measurement assures consistent outcomes for identical fact situations. However, the economic criterion presupposes that a fair value is available for every asset on an ongoing basis. Otherwise, an event or change in circumstance would be needed to determine which assets needed to be measured and in which period. Some respondents to the Discussion Memorandum indicated that the results of a measurement should not be sufficient reason to trigger recognition of an impairment loss. They favored using either the permanence or probability criterion to avoid recognition of write-downs that might result from measurements reflecting only temporary market fluctuations.
>
> The permanence criterion calls for loss recognition when the carrying amount of an asset exceeds the asset's fair value and the condition is judged to be permanent. Some respondents to the Discussion Memorandum indicated that a loss must be permanent rather than temporary before recognition should occur. In their view, a high hurdle for recognition of an impairment loss is necessary to prevent premature write-offs of productive assets. Others stated that requiring the impairment loss to be permanent makes the criterion too restrictive and virtually impossible to apply with any reliability. Still others noted that the permanence criterion is not practical to implement; in their view, requiring management to assess whether a loss is permanent goes beyond management's ability to apply judgment and becomes a requirement for management to predict future events with certainty.
>
> The probability criterion, initially presented in the Issues Paper, calls for loss recognition based on the approach taken in FASB Statement No. 5, *Accounting for Contingencies*. Using that approach, an impairment loss would be recognized when it is deemed probable that the carrying amount of an asset cannot be fully recovered. Some

> respondents to the Discussion Memorandum stated that assessing the probability that an impairment loss has occurred is preferable to other recognition alternatives because it is already required by Statement 5. Most respondents to the Discussion Memorandum supported the probability criterion because, in their view, it best provides for management judgment.

When to Test a Long-Lived Asset for Recoverability

B16. This Statement retains the requirement of Statement 121 to test a long-lived asset (asset group) for recoverability whenever events or changes in circumstances indicate that its carrying amount may not be recoverable. Paragraph 57 of Statement 121 discussed the basis for the Board's conclusion:

> The Board concluded . . . that management has the responsibility to consider whether an asset is impaired but that to test each asset each period would be too costly. Existing information and analyses developed for management review of the entity and its operations generally will be the principal evidence needed to determine when an impairment exists. Indicators of impairment, therefore, are useful examples of events or changes in circumstances that suggest that the recoverability of the carrying amount of an asset should be assessed.

B17. Statement 121 provided examples of such events or changes in circumstances. The Board decided to expand those examples, carried forward in paragraph 8 of this Statement, to also refer to a current expectation that a long-lived asset (asset group) will be disposed of significantly before the end of its previously estimated useful life (paragraph 8(f)). The Board reasoned that a current expectation that a long-lived asset (asset group) will be disposed of significantly before the end of its previously estimated useful life might indicate that the carrying amount of the asset (group) is not recoverable.

Estimates of Future Cash Flows Used to Test a Long-Lived Asset for Recoverability

B18. Statement 121 provided general guidance for developing estimates of future cash flows used to estimate the fair value of a long-lived asset (asset group) in the absence of an observable market price. However, it did not specify whether that guidance also should apply for developing estimates of future cash flows used to test a long-lived asset (asset group) for recoverability. Consequently, in implementing Statement 121, questions emerged about how to develop those estimates.

B19. In considering that issue, the Board noted that in contrast to an objective of measuring fair value, the objective of the undiscounted cash flows recoverability test is to assess the recoverability of a long-lived asset (asset group) in the context of a particular entity. The Board decided that because the objectives of measuring fair value and testing a long-lived asset (asset group) for recoverability are different, this Statement should provide guidance for developing estimates of future cash flows used to test for recoverability. The Board acknowledges that significant judgment is required in developing

estimates of future cash flows. However, the Board believes that the level of guidance provided by this Statement is sufficient for meeting the objective of an undiscounted cash flows recoverability test.

B20. The guidance provided by this Statement focuses on (a) the cash flow estimation approach, (b) the cash flow estimation period, and (c) the types of asset-related expenditures that should be considered in developing estimates of future cash flows.

Cash flow estimation approach

B21. The guidance in Statement 121 permitted the use of either a probability-weighted approach or a best-estimate approach in developing estimates of future cash flows used to test for recoverability. Both of those cash flow estimation approaches are discussed in FASB Concepts Statement No. 7, *Using Cash Flow Information and Present Value in Accounting Measurements,* issued in February 2000. A probability-weighted approach refers to the sum of probability-weighted amounts in a range of possible estimated amounts. A best-estimate approach refers to the single most-likely amount in a range of possible estimated amounts. During its deliberations leading to the Exposure Draft, the Board reasoned that because the probability-weighted approach discussed in Concepts Statement 7 incorporates uncertainty in estimates of future cash flows, it would provide a more complete and disciplined estimate of future cash flows than would a best-estimate approach. Therefore, the Exposure Draft would have required, rather than permitted, the use of that approach in developing estimates of future cash flows used to test for recoverability.

B22. Several respondents to the Exposure Draft disagreed with that proposed requirement, stating that, for many entities, a probability-weighted approach would not be practical or cost-beneficial in developing estimates of future cash flows used to test for recoverability. The principal concern expressed by respondents was that in many cases, reliable information about the likelihood of possible outcomes would not be available. They said that the Board should permit the use of either a best-estimate approach or a probability-weighted approach in developing those estimates, as under Statement 121. During its redeliberations of the Exposure Draft, the Board decided not to require the probability-weighted approach in Concepts Statement 7 in developing estimates of future cash flows used to test for recoverability. The Board noted that Concepts Statement 7 expresses a preference for a probability-weighted approach, but that preference is discussed in the context of developing estimates of future cash flows that provide the basis for an accounting measurement (fair value). The Board concluded that because estimates of future cash flows used to test for recoverability, in and of themselves, do not provide the basis for an accounting measurement, the preference for a probability-weighted approach in Concepts Statement 7 need not be extended to those estimates. However, the Board agreed that in situations in which alternative courses of action to recover the carrying amount of a long-lived asset (asset group) are under consideration or in which a range is estimated for the amount of possible future cash flows associated with the likely course of action, a probability-weighted approach may be useful in considering the likelihood of those possible outcomes.

Cash flow estimation period

B23. Statement 121 did not specify the cash flow estimation period for estimates of future cash flows used to test for recoverability. The Board decided that the cash flow estimation period should correspond to the period that a long-lived asset (asset group) is expected to provide service potential to the entity. Accordingly, the cash flow estimation period for a long-lived asset is based on its remaining useful life to the entity. If long-lived assets having different remaining useful lives are grouped, the cash flow estimation period for the asset group is based on the remaining useful life of the primary asset of the group to the entity. The definition of a primary asset proposed in the Exposure Draft limited that asset to a tangible long-lived asset. Several respondents to the Exposure Draft agreed with the primary asset approach for determining the cash flow estimation period for an asset group. However, many said that because intangible assets often are more significant than tangible assets, the Board should expand the definition of a primary asset to include those assets.

B24. The Board initially decided to limit the primary asset to a tangible long-lived asset principally to prohibit an entity from arbitrarily designating as the primary asset goodwill associated with the group. The Board's decision was influenced by the then-existing requirement to amortize goodwill over a period of up to 40 years. However, in view of its subsequent decision in Statement 142 that goodwill should no longer be amortized, the Board decided to broaden the definition of a primary asset to include either a recognized tangible asset being depreciated or an intangible asset being amortized. The Board concluded that because there needs to be some boundaries on the cash flow estimation period for an asset group, indefinite-lived assets, such as land and intangible assets not being amortized, are not eligible to be primary assets. The Board affirmed its conclusion in the Exposure Draft that, for many asset groups, the primary asset will be readily identifiable and that the remaining useful life of that asset to the entity is a reasonable basis for consistently determining the cash flow estimation period for an asset group.

B25. During its deliberations leading to the Exposure Draft, the Board considered but rejected alternative approaches for determining the cash flow estimation period for an asset group. One approach would have limited the estimation period to the shorter of (a) the remaining useful life of the primary asset of the group or (b) 10 years and would have assumed the sale of the group at the end of that shortened period (limited estimation approach). The Board observed that because a limited estimation approach would include estimated disposal values (fair values) in estimates of future cash flows used to test for recoverability, the effect of that approach would be to discount some portion of those cash flows. The Board concluded that a limited estimation approach would be inconsistent with the requirement of this Statement to recognize an impairment loss only if the carrying amount of a long-lived asset (asset group) is not recoverable from its undiscounted future cash flows.

B26. Another approach for determining the cash flow estimation period for an asset group would have used the average of the remaining useful lives of the long-lived assets of the group, weighted based on the relative carrying amounts of those assets (weighted-average approach). The Board acknowledged that for some asset groups, a weighted-average approach could avoid difficulties in identifying the primary asset, but it concluded that for many entities, that approach could be unduly

burdensome and result in little, if any, incremental benefit. Some respondents to the Exposure Draft suggested that the Board reconsider a weighted-average approach for entities that use a group composite depreciation method. However, the Board noted that the cost-capitalization approach proposed in the Exposure Draft of a proposed AICPA Statement of Position, *Accounting for Certain Costs and Activities Related to Property, Plant, and Equipment,* issued in June 2001, would effectively eliminate that depreciation method. The Board also believes that the approach for determining the cash flow estimation period should be the same for all entities with long-lived assets covered by this Statement.

Asset-related expenditures for a long-lived asset in use

B27. Statement 121 did not identify the types of asset-related expenditures that should be considered in estimates of future cash flows used to test a long-lived asset (asset group) for recoverability. During its deliberations leading to the Exposure Draft, the Board observed that, as a result, an entity could avoid the write-down of a long-lived asset that is in use by including in those estimates the cash flows (cash outflows and cash inflows) associated with all possible improvements that would be capitalized in future periods. In that case, the recoverability of the long-lived asset (asset group) would be assessed based on its expected future service potential ("as improved"), rather than on its existing service potential ("as is").

B28. The Board decided that a long-lived asset (asset group) that is in use, including a long-lived asset (asset group) for which development is substantially complete, should be tested for recoverability based on its existing service potential at the date of that test. Therefore, estimates of future cash flows used in that test should exclude the cash flows associated with asset-related expenditures that would enhance the existing service potential of a long-lived asset (asset group) that is in use.

B29. The Board decided that estimates of future cash flows used to test for recoverability should include cash flows (including estimated salvage values) associated with asset-related expenditures that replace (a) component parts of a long-lived asset or (b) component assets (other than the primary asset) of an asset group, whether those expenditures would be recognized as an expense or capitalized in future periods. The Board considered an alternative approach that would have excluded the cash flows associated with those expenditures. However, the Board observed that because an asset group could not continue to be used without replacing the component assets of the group, there would be an assumption that the asset of the group would be sold at the end of the remaining useful life of the primary asset. By including the estimated disposal values of those assets (fair values) in estimates of future cash flows used to test for recoverability, the effect of that approach would be to discount some portion of the cash flows. As discussed in paragraph B25, such an approach would be inconsistent with the requirement of this Statement to recognize an impairment loss only if the carrying amount of a long-lived asset (asset group) is not recoverable from its undiscounted future cash flows.

B30. Some respondents to the Exposure Draft noted that if an entity has a plan to improve a long-lived asset (asset group) that is in use, the entity could be required to write down the carrying amount of the asset (asset group) even if it would be recoverable after it is improved. They suggested that the Board permit an exception to the existing service potential requirement for a long-lived asset (asset group) that is in use in that situation. During its redeliberations of the Exposure Draft, the Board decided not to make that exception for the reason discussed in paragraph B27. However, the Board observed that in measuring fair value, if marketplace participants would assume the same improvements to the asset as the entity, the estimates of future cash flows used to measure fair value would include the cash flows (cash outflows and cash inflows) associated with those improvements. Consequently, it is possible that although the carrying amount of the asset (asset group) is not recoverable in its present condition, the fair value of the asset (asset group) could exceed its carrying amount and no impairment would exist.

Asset-related expenditures for a long-lived asset under development

B31. The Board observed that in contrast to a long-lived asset (asset group) that is in use, a long-lived asset (asset group) that is under development will not provide service potential until development is substantially complete. The Board decided that such an asset (asset group) should be tested for recoverability based on its expected service potential. Therefore, estimates of future cash flows used in that test should include the cash flows (cash outflows and cash inflows) associated with all future asset-related expenditures necessary to develop the asset (asset group), whether those expenditures would be recognized as an expense or capitalized in future periods.

B32. In Statement 121, the Board decided that estimates of future cash flows used to test a long-lived asset (asset group) for recoverability should exclude all future interest payments, whether those payments would be recognized as an expense or capitalized in future periods. In this Statement, the Board reconsidered that decision, noting that for a long-lived asset (asset group) that is under development, interest payments during the development period would be capitalized in accordance with [Group 'fas34(am), par. 6']paragraph 6 of FASB Statement No. 34, *Capitalization of Interest Cost,* which states:

> The historical cost of acquiring an asset includes the costs necessarily incurred to bring it to the condition and location necessary for its intended use. If an asset requires a period of time in which to carry out the activities necessary to bring it to that condition and location, the interest cost incurred during that period as a result of expenditures for the asset is a part of the historical cost of acquiring the asset. [Footnote references omitted.]

The Board reasoned that for a long-lived asset (asset group) that is under development, there is no difference between interest payments and other asset-related expenditures that would be capitalized in future periods. Therefore, the Board decided that estimates of future cash flows used to test a long-lived asset (asset group) for recoverability should exclude only those interest payments that would be recognized as an expense when incurred.

B33. Some respondents to the Exposure Draft asked the Board to clarify how the service potential requirements of this Statement would apply if a long-lived asset that is under development is part of an asset group that includes other assets that are in use. This Statement clarifies that the estimates of future cash flows used to test such an asset group for recoverability should include the cash flows (cash outflows and cash inflows) associated with (a) future asset-related expenditures necessary to complete the asset that is under development and (b) future asset-related expenditures necessary to maintain the existing service potential of the other assets that are in use.

Measurement of an Impairment Loss

B34. This Statement retains the requirement of Statement 121 to measure an impairment loss for a long-lived asset, including an asset that is subject to nonrecourse debt, as the amount by which the carrying amount of the asset (asset group) exceeds its fair value. Paragraphs 69-72 and 103 and 104 of Statement 121 discussed the basis for the Board's conclusion:

> The Board concluded that a decision to continue to operate rather than sell an impaired asset is economically similar to a decision to invest in that asset and, therefore, the impaired asset should be measured at its fair value. The amount of the impairment loss should be the amount by which the carrying amount of the impaired asset exceeds the fair value of the asset. That fair value then becomes the asset's new cost basis.
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> When an entity determines that expected future cash flows from using an asset will not result in the recovery of the asset's carrying amount, it must decide whether to sell the asset and use the proceeds for an alternative purpose or to continue to use the impaired asset in its operations. The decision presumably is based on a comparison of expected future cash flows from those alternative courses of action and is essentially a capital investment decision. In either alternative, proceeds from the sale of the impaired asset are considered in the capital investment decision. Consequently, a decision to continue to use the impaired asset is equivalent to a new asset purchase decision, and a new basis of fair value is appropriate.
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> . . . The Board . . . concluded that the fair value of an impaired asset is the best measure of the cost of continuing to use that asset because it is consistent with management's decision process. Presumably, no entity would decide to continue to use an asset unless that alternative was expected to produce more in terms of expected future cash flows or service potential than the alternative of selling it and reinvesting the proceeds. The Board also believes that using fair value to measure the amount of an impairment loss is not a departure from the historical cost principle. Rather, it is a consistent application of principles practiced elsewhere in the current system of accounting whenever a cost basis for a newly acquired asset must be determined.

The Board believes that fair value is an easily understood notion. It is the amount at which an asset could be bought or sold in a current transaction between willing parties. The fair value measure is basic to economic theory and is grounded in the reality of the marketplace. Fair value estimates are readily available in published form for many assets, especially machinery and equipment. For some assets, multiple, on-line database services provide up-to-date market price information. Estimates of fair value also are subject to periodic verification whenever assets are exchanged in transactions between willing parties.

The Board considered requests for a limited exception to the fair value measurement for impaired long-lived assets that are subject to nonrecourse debt. Some believe that the nonrecourse provision is effectively a put option for which the borrower has paid a premium. They believe that the impairment loss on an asset subject entirely to nonrecourse debt should be limited to the loss that would occur if the asset were put back to the lender.

The Board decided not to provide an exception for assets subject to nonrecourse debt. The recognition of an impairment loss and the recognition of a gain on the extinguishment of debt are separate events, and each event should be recognized in the period in which it occurs. The Board believes that the recognition of an impairment loss should be based on the measurement of the asset at its fair value and that the existence of nonrecourse debt should not influence that measurement.

Alternative Measures of an Impairment Loss

B35. In Statement 121, the Board considered but rejected measures other than fair value for measuring an impairment loss that could have been achieved within the historical cost framework. Specifically, the Board considered (a) a recoverable cost measure, (b) a recoverable cost including interest measure, and (c) different measures for different impairment losses.

B36. Paragraphs 77-81 of Statement 121 discussed a recoverable cost measure:

Recoverable cost is measured as the sum of the undiscounted future cash flows expected to be generated over the life of an asset. For example, if an asset has a carrying amount of $1,000,000, a remaining useful life of 5 years, and expected future cash flows over the 5 years of $180,000 per year, the recoverable cost would be $900,000 (5 × $180,000), and the impairment loss would be $100,000 ($1,000,000 — $900,000).

The Board did not adopt recoverable cost as the measure of an impairment loss. Proponents of the recoverable cost measure believe that impairment is the result of the inability to recover the carrying amount of an asset. They do not view the decision to retain an impaired asset as an investment decision; rather, they view the recognition of an

impairment loss as an adjustment to the historical cost of the asset. They contend that recoverable cost measured by the sum of the undiscounted expected future cash flows is the appropriate carrying amount for an impaired asset and the amount on which the impairment loss should be determined.

Proponents of the recoverable cost measure do not believe that the fair value of an asset is a relevant measure unless a transaction or other event justifies a new basis for the asset at fair value. They do not view impairment to be such an event.

Some proponents of the recoverable cost measure assert that measuring an impaired asset at either fair value or a discounted present value results in an inappropriate understatement of net income in the period of the impairment and an overstatement of net income in subsequent periods. The Board did not agree with that view. Board members noted that measuring an impaired asset at recoverable cost could result in reported losses in future periods if the entity had incurred debt directly associated with the asset.

Proponents of the recoverable cost measure view interest cost as a period cost that should not be included as part of an impairment loss regardless of whether the interest is an accrual of actual debt costs or the result of discounting expected future cash flows using a debt rate.

B37. Paragraphs 82-85 of Statement 121 discussed a recoverable cost including interest measure:

Recoverable cost including interest generally is measured as either (a) the sum of the undiscounted expected future cash flows including interest costs on actual debt or (b) the present value of expected future cash flows discounted at some annual rate such as a debt rate. For example, if an asset has a carrying value of $1,000,000, a remaining useful life of 5 years, expected future cash flows (excluding interest) over the 5 years of $180,000 per year, and a debt rate of 6 percent, recoverable cost including interest would be $758,225 (4.21236 × $180,000), and the impairment loss would be $241,775 ($1,000,000 — $758,225).

The Board did not adopt recoverable cost including interest as an appropriate measure of an impairment loss. Proponents of the recoverable cost including interest measure agree that the time value of money should be considered in the measure, but they view the time value of money as an element of cost recovery rather than as an element of fair value. Proponents believe that the measurement objective for an impaired asset should be recoverable cost and not fair value. However, they believe that interest should be included as a carrying cost in determining the recoverable cost. To them, the objective is to recognize the costs (including the time value of money) that are not recoverable as an impairment loss and to measure an impaired asset at the costs that are recoverable.

> Because of the difficulties in attempting to associate actual debt with individual assets, proponents of the recoverable cost including interest measure believe that the present value of expected future cash flows using a debt rate such as an incremental borrowing rate is a practical means of achieving their measurement objective. They recognize that an entity that has no debt may be required to discount expected future cash flows. They believe that the initial investment decision would have included consideration of the debt or equity cost of funds.
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> The Board believes that use of the recoverable cost including interest measure would result in different carrying amounts for essentially the same impaired assets because they are owned by different entities that have different debt capacities. The Board does not believe that discounting expected future cash flows using a debt rate is an appropriate measure for determining the value of those assets.

B38. Paragraph 86 of Statement 121 discussed different measures for different impairment losses:

> The Board also considered but did not adopt an alternative approach that would require different measures for different impairments. At one extreme, an asset might be impaired because depreciation assumptions were not adjusted appropriately. At the other extreme, an asset might be impaired because of a major change in its use. Some believe that the first situation is similar to a depreciation "catch-up" adjustment and that an undiscounted measure should be used. They believe that the second situation is similar to a new investment in an asset with the same intended use and that a fair value measure should be used. The Board was unable to develop a workable distinction between the first and second situations that would support the use of different measures.

Fair Value

B39.

Fair Value

This Statement retains the hierarchy in Statement 121 for measuring fair value. Because quoted market prices in active markets are the best evidence of fair value, they should be used, if available. Otherwise, the estimate of fair value should be based on the best information available in the circumstances, including prices for similar assets (asset groups) and the results of using other valuation techniques.

B40. The Board acknowledges that in many instances, quoted market prices in active markets will not be available for the long-lived assets (asset groups) covered by this Statement. The Board concluded that for those long-lived assets (asset groups), a present value technique is often the best available valuation technique with which to estimate fair value. Paragraphs 39—54 of Concepts Statement 7, which are incorporated in Appendix E, discuss the use of two present value techniques—expected

present value and traditional present value. During its deliberations leading to the Exposure Draft, the Board concluded that an expected present value technique is superior to a traditional present value technique, especially in situations in which the timing or amount of estimated future cash flows is uncertain. Because such situations often arise for the long-lived assets (asset groups) covered by this Statement, the Exposure Draft set forth the Board's expectation that when using a present value technique, most entities would use expected present value.

B41. Several respondents to the Exposure Draft suggested that the Board provide clearer guidance on whether and, if so, when entities are required to use an expected present value technique versus a traditional present value technique to minimize confusion and inconsistent application of this Statement. During its redeliberations of the Exposure Draft, the Board decided not to specify a requirement for either present value technique. The Board decided that preparers should determine the present value technique best suited to their specific circumstances based on the guidance in Concepts Statement 7. However, the Board noted that a traditional present value technique cannot accommodate uncertainties in the timing of future cash flows. Further, for nonfinancial assets, such as those covered by this Statement, paragraph 44 of Concepts Statement 7 explains:

> The traditional approach is useful for many measurements, especially those in which comparable assets and liabilities can be observed in the marketplace. However, the Board found that the traditional approach does not provide the tools needed to address some complex measurement problems, including the measurement of nonfinancial assets and liabilities for which no market for the item or a comparable item exists. The traditional approach places most of the emphasis on selection of an interest rate. A proper search for "the rate commensurate with the risk" requires analysis of at least two items—one asset or liability that exists in the marketplace and has an observed interest rate and the asset or liability being measured. The appropriate rate of interest for the cash flows being measured must be inferred from the observable rate of interest in some other asset or liability and, to draw that inference, the characteristics of the cash flows must be similar to those of the asset being measured.

B42. In this Statement, the Board clarified that consistent with the objective of measuring fair value, assumptions that marketplace participants would use in their estimates of fair value should be incorporated in estimates of future cash flows whenever that information is available without undue cost and effort. The Exposure Draft provided examples of circumstances in which an entity's assumptions might differ from marketplace assumptions. During its redeliberations of the Exposure Draft, the Board decided that it was not necessary to include those examples in this Statement, noting that related guidance is provided in paragraphs 23 and 32 of Concepts Statement 7, which are incorporated in Appendix E.

B43. The Board recognizes that there may be practical problems in determining the fair value of certain types of long-lived assets (asset groups) covered by this Statement that do not have observable market prices. Because precise information about the relevant attributes of those assets

(asset groups) seldom will be available, judgments, estimates, and projections will be required for estimating fair value. Although the objective of using a present value or other valuation technique is to determine fair value, the Board acknowledges that, in some circumstances, the only information available to estimate fair value without undue cost and effort will be the entity's estimates of future cash flows. Paragraph 38 of Concepts Statement 7 explains:

> As a practical matter, an entity that uses cash flows in accounting measurements often has little or no information about some or all of the assumptions that marketplace participants would use in assessing the fair value of an asset or a liability. In those situations, the entity must necessarily use the information that is available without undue cost and effort in developing cash flow estimates. The use of an entity's own assumptions about future cash flows is compatible with an estimate of fair value, as long as there are no contrary data indicating that marketplace participants would use different assumptions. If such data exist, the entity must adjust its assumptions to incorporate that market information.

Grouping Long-Lived Assets to Be Held and Used

B44. For purposes of recognition and measurement of an impairment loss, this Statement retains the requirement of Statement 121 to group a long-lived asset or assets with other assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. In Statement 121, the Board acknowledged that the primary issue underlying the grouping of long-lived assets is when, if ever, it is appropriate to offset unrealized losses on some assets by unrealized gains on other assets. However, the Board concluded that such offsetting is appropriate when a long-lived asset that is not an individual source of cash flows is part of a group of assets that are used together to generate joint cash flows. The Board affirmed that conclusion in this Statement. This Statement establishes that an asset group is the unit of accounting for a long-lived asset while it is classified as held and used.

B45. In Statement 121, the Board also acknowledged that grouping long-lived assets requires significant judgment. In that regard, the Board reviewed a series of cases that demonstrated the subjectivity of grouping issues. Paragraphs 96-98 of Statement 121 stated:

> Varying facts and circumstances introduced in the cases inevitably justified different groupings. Although most respondents to the Discussion Memorandum generally favored grouping at the lowest level for which there are identifiable cash flows for recognition and measurement of an impairment loss, determining that lowest level requires considerable judgment.
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> The Board considered a case that illustrated the need for judgment in grouping assets for impairment. In that case, an entity operated a bus company that provided service under contract with a municipality that required minimum service on each of five separate

routes. Assets devoted to serving each route and the cash flows from each route were discrete. One of the routes operated at a significant deficit that resulted in the inability to recover the carrying amounts of the dedicated assets. The Board concluded that the five bus routes would be an appropriate level at which to group assets to test for and measure impairment because the entity did not have the option to curtail any one bus route.

The Board concluded that the grouping issue requires significant management judgment within certain parameters. Those parameters are that the assets should be grouped at the lowest level for which there are cash flows that are identifiable and that those cash flows should be largely independent of the cash flows of other groupings of assets.

B46. In this Statement, as in Statement 121, the Board acknowledges that in limited circumstances, an asset group will include all assets and liabilities of the entity. Paragraphs 99 and 100 of Statement 121 explained:

Not-for-profit organizations that rely in part on contributions to maintain their assets may need to consider those contributions in determining the appropriate cash flows to compare with the carrying amount of an asset. Some respondents to the Exposure Draft stated that the recognition criteria in paragraph 6 would be problematic for many not-for-profit organizations because it may be difficult, if not impossible, for them to identify expected future cash flows with specific assets or asset groupings. In other cases, expected future cash flows can be identified with asset groups. However, if future unrestricted contributions to the organization as a whole are not considered, the sum of the expected future cash flows may be negative, or positive but less than the carrying amount of the asset. For example, the costs of administering a museum may exceed the admission fees charged, but the organization may fund the cash flow deficit with unrestricted contributions.

Other respondents indicated that similar difficulties would be experienced by business enterprises. For example, the cost of operating assets such as corporate headquarters or centralized research facilities may be funded by revenue-producing activities at lower levels of the enterprise. Accordingly, in limited circumstances, the lowest level of identifiable cash flows that are largely independent of other asset groups may be the entity level. The Board concluded that the recoverability test in paragraph 6 should be performed at the entity level if an asset does not have identifiable cash flows lower than the entity level. The cash flows used in the recoverability test should be reduced by the carrying amounts of the entity's other assets that are covered by this Statement to arrive at the cash flows expected to contribute to the recoverability of the asset being tested. Not-for-profit organizations should include unrestricted contributions to the organization as a whole that are a source of funds for the operation of the asset.

B47. Based on the Board's previous decisions discussed in paragraph 100 of Statement 121, the Exposure Draft would have required that estimates of future cash flows for an asset group be adjusted to exclude the portion of those cash flows necessary to recover the carrying amounts of the assets and liabilities of the group not covered by this Statement. However, during its redeliberations of the Exposure Draft, the Board decided to eliminate that requirement, noting that because the unit of accounting for a long-lived asset to be held and used is its asset group, such adjustments are unnecessary.

Goodwill

B48. In Statement 142, the Board decided that because goodwill should no longer be amortized, it should be tested for impairment in a manner different from how the long-lived assets covered by this Statement are tested for impairment. In developing the guidance in Statement 142, the Board decided that the reporting unit (as defined in that Statement) is the unit of measure for goodwill and that all goodwill should be tested for impairment at that level. The Board therefore decided to eliminate the requirement of Statement 121 to include goodwill in an asset group previously acquired in a business combination to be tested for impairment, which the Exposure Draft would have retained. The Board decided that goodwill should be included in such an asset group only if it is or includes a reporting unit. Goodwill should be excluded from such an asset group if it is only part of a reporting unit.

B49. During its redeliberations of the Exposure Draft, the Board considered the effect of excluding goodwill from an asset group that is only part of a reporting unit. The Board observed that although the carrying amount of the asset group would exclude goodwill, the estimates of future cash flows used to test the group for recoverability could include cash flows attributable to goodwill. However, the Board decided that those estimates of future cash flows should not be adjusted for the effect of excluding goodwill. The Board reasoned that because any adjustment likely would be arbitrary, adjusted estimates of future cash flows would not necessarily provide a better estimate of the cash flows expected to contribute to the recoverability of the group. Further, an additional requirement to determine a goodwill adjustment under this Statement would not be cost beneficial.

Allocation of an Impairment Loss

B50. Paragraph 12 of Statement 121 specified that "in instances where goodwill is identified with assets that are subject to an impairment loss, the carrying amount of the identified goodwill shall be eliminated before making any reduction of the carrying amounts of impaired long-lived assets and identifiable intangibles." However, it did not specify how the excess, if any, should be allocated to the other assets of the group. The Board observed that if long-lived assets having different depreciable lives are grouped, the method used to allocate the excess impairment loss, if any, to the assets of the group can affect the pattern of income recognition over the succeeding years. To improve the consistency and comparability of reported financial information over time and among entities, the Board decided that this Statement should specify an allocation method.

B51. The Board decided that because other accounting requirements prescribe the accounting for assets and liabilities not covered by this Statement that are included in an asset group, an impairment loss that is determined based on the carrying amount and fair value of an asset group should reduce only the carrying amounts of the long-lived assets of the group. Paragraph 14 of this Statement requires that an impairment loss be allocated to those long-lived assets on a pro rata basis using their relative carrying amounts, provided that the carrying amount of an individual long-lived asset of the group is not reduced to an amount less than its fair value whenever that fair value is determinable without undue cost and effort. The Board concluded that it would be inappropriate to reduce the carrying amount of a long-lived asset to an amount below its fair value. The Board believes that the allocation method for an impairment loss provides a consistent basis for adjusting the carrying amounts of the long-lived assets of an asset group.

Depreciation

B52. This Statement retains the requirement of Statement 121 to consider the need to review depreciation estimates and method for a long-lived asset in accordance with APB Opinion No. 20, *AccountingChanges,* if a long-lived asset is tested for recoverability. This Statement clarifies that any revision to the remaining useful life of a long-lived asset resulting from that review should be considered in developing estimates of future cash flows used to test for recoverability but that any change in the method of accounting for the asset should be made only after applying this Statement. In Statement 121, the Board decided not to expand the scope of that Statement to address depreciation issues. The Board affirmed its initial decision in Statement 121 and, therefore, this Statement does not prescribe the basis for revisions to depreciation estimates or method, or otherwise address depreciation issues.

Restoration of an Impairment Loss

B53. This Statement retains the prohibition in Statement 121 on the restoration of a previously recognized impairment loss. Paragraph 105 of Statement 121 discussed the basis for the Board's conclusion:

> The Board considered whether to prohibit or require restoration of previously recognized impairment losses. It decided that an impairment loss should result in a new cost basis for the impaired asset. That new cost basis puts the asset on an equal basis with other assets that are not impaired. In the Board's view, the new cost basis should not be adjusted subsequently other than as provided under the current accounting model for prospective changes in the depreciation estimates and method and for further impairment losses. Most respondents to the Exposure Draft agreed with the Board's decision that restoration should be prohibited.

Reporting and Disclosure

B54. Paragraph 25 of this Statement retains the requirements of Statement 121 for reporting an impairment loss recognized for a long-lived asset to be held and used. Paragraph 108 of Statement 121 discussed the basis for the Board's conclusion:

> The Board considered the alternative ways described in the Discussion Memorandum for reporting an impairment loss: reporting the loss as a component of continuing operations, reporting the loss as a special item outside continuing operations, or separate reporting of the loss without specifying the classification in the statement of operations. The Board concluded that an impairment loss should be reported as a component of income from continuing operations before income taxes for entities that present an income statement and in the statement of activities of a not-for-profit organization. If no impairment had occurred, an amount equal to the impairment loss would have been charged to operations over time through the allocation of depreciation or amortization. That depreciation or amortization charge would have been reported as part of continuing operations of a business enterprise or as an expense in the statement of activities of a not-for-profit organization. Further, an asset that is subject to a reduction in its carrying amount due to an impairment loss will continue to be used in operations. The Board concluded that an impairment loss does not have characteristics that warrant special treatment, for instance, as an extraordinary item.

B55. Paragraph 26 of this Statement retains the disclosure requirements of Statement 121 relating to impairment losses. Paragraphs 109 and 94 of Statement 121 discussed the basis for the Board's conclusion:

> The Board believes that financial statements should include information on impairment losses that would be most useful to users. After considering responses to the Exposure Draft, the Board concluded that an entity that recognizes an impairment loss should describe the assets impaired and the facts and circumstances leading to the impairment; disclose the amount of the loss and how fair value was determined; disclose the caption in the income statement or the statement of activities in which the loss is aggregated unless that loss has been presented as a separate caption or reported parenthetically on the face of the statement; and, if applicable, disclose the business segment(s) affected. The Board decided not to require further disclosures, such as the assumptions used to estimate expected future cash flows and the discount rate used when fair value is estimated by discounting expected future cash flows.
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> Several respondents to the Exposure Draft said that disclosure of the discount rate used to determine the present value of the estimated expected future cash flows should not be required. The Board decided that disclosure of the discount rate without disclosure of the other assumptions used in estimating expected future cash flows generally would not be meaningful to financial statement users. Therefore, this Statement does not require disclosure of the discount rate.

B56. A few respondents to the Exposure Draft suggested that the Board reconsider its decision in Statement 121 not to require disclosure of the discount rate and other assumptions used in measuring fair value. They said that such disclosures would provide useful information for evaluating impairment write-downs. However, the Board concluded that without access to management's cash flow projections and its methods of estimating those cash flows, the suggested disclosures would not necessarily be useful to users in evaluating impairment write-downs. The Board affirmed its initial conclusions in Statement 121 and, therefore, this Statement does not require disclosure of that information.

Early Warning Disclosures

B57 This Statement, like Statement 121, does not require early warning disclosures. Paragraphs 110 and 111 of Statement 121 discussed the basis for the Board's conclusion:

> In 1985, the AICPA established a task force to consider the need for improved disclosures about risks and uncertainties that affect companies and the manner in which they do business. In July 1987, the task force published *Report of the Task Force on Risks and Uncertainties,* which concluded that companies should make early warning disclosures in their financial statements. In December 1994, AcSEC issued AICPA Statement of Position 94-6, *Disclosure of Certain Significant Risks andUncertainties.* That SOP requires entities to include in their financial statements disclosures about (a) the nature of operations, (b) the use of estimates in the preparation of financial statements, (c) certain significant estimates, and (d) current vulnerability due to certain concentrations.
>
> The Board observed that early warning disclosures would be useful for certain potential impairments. However, most respondents to the Exposure Draft said that the Statement should not require early warning disclosures. The Board observed that SOP 94-6 uses essentially the same events or changes in circumstances as those in paragraph 5 of this Statement to illustrate when disclosures of certain significant estimates should be made for long-lived assets. Therefore, the Board concluded that it was not necessary for this Statement to require early warning disclosures.

Amendment to Statement 15

B58. This Statement carries forward the amendment made by Statement 121 to FASB Statement No. 15, *Accounting by Debtors and Creditors for Troubled Debt Restructurings,* discussed in paragraphs 136-138 of Statement 121:

> In May 1993, the Board issued FASB Statement No. 114, *Accounting by Creditors for Impairment of a Loan,* which requires certain impaired loans to be measured based on the present value of expected future cash flows, discounted at the loan's effective interest rate, or as a practical expedient, at the loan's observable market price or the fair value of

the collateral if the impaired loan is collateral dependent. Regardless of the measurement method, a creditor should measure impairment based on the fair value of the collateral when the creditor determines that foreclosure is probable. A creditor should consider estimated costs to sell, on a discounted basis, in the measure of impairment if those costs are expected to reduce the cash flows available to repay or otherwise satisfy the loan.

As suggested by one commentator to the Exposure Draft, the Board decided to amend Statement 15 to make the measurement of long-lived assets that are received in full satisfaction of a receivable and that will be sold consistent with the measurement of other long-lived assets under this Statement. The amendment requires that those assets be measured at fair value less cost to sell. The Board considered amending Statement 15 to address shares of stock or equity interests in long-lived assets that are received in full satisfaction of a receivable and that will be sold, but it determined that those items are outside the scope of this Statement.

Loans and long-lived assets are similar in that both are cash-generating assets that are subject to impairment. However, inherent differences between monetary and nonmonetary assets have resulted in different accounting treatments for them under the current reporting model.

Amendment to Statement 71

B59. This Statement carries forward the amendment made by Statement 121 to FASB Statement No. 71, *Accounting for the Effects of Certain Types of Regulation,* to apply the provisions of this Statement for long-lived assets to be held and used to all assets of a regulated enterprise except (a) regulatory assets that meet the criteria of paragraph 9 of Statement 71 and (b) costs of recently completed plants that are covered by paragraph 7 of FASB Statement No. 90, *Regulated Enterprises—Accounting for Abandonments and Disallowances of Plant Costs.* Therefore, regulatory assets capitalized as a result of paragraph 9 of Statement 71 should be tested for impairment whenever the criteria of that paragraph are no longer met. Paragraphs 127 and 128 of Statement 121 explained:

FASB Statement No. 71, *Accounting for the Effects of Certain Types of Regulation,* establishes the accounting model for certain rate-regulated enterprises. Because the rates of rate-regulated enterprises generally are designed to recover the costs of providing regulated services or products, those enterprises are usually able to recover the carrying amounts of their assets. Paragraph 10 of Statement 71 states that when a regulator excludes a cost from rates, "the carrying amount of any related asset shall be reduced to the extent that the asset has been impaired. Whether the asset has been impaired shall be judged the same as for enterprises in general" (footnote reference omitted). Statement 71 does not provide any guidance about when an impairment has, in fact, occurred or about how to measure the amount of the impairment.

> The Board considered whether the accounting for the impairment of long-lived assets and identifiable intangibles by rate-regulated enterprises that meet the criteria for applying Statement 71 should be the same as for enterprises in general. In March 1993, the EITF discussed incurred costs capitalized pursuant to the criteria of paragraph 9 of Statement 71. The EITF reached a consensus in EITF Issue No. 93-4, "Accounting for Regulatory Assets," that a cost that does not meet the asset recognition criteria in paragraph 9 of Statement 71 at the date the cost is incurred should be recognized as a regulatory asset when it does meet those criteria at a later date. The EITF also reached a consensus that the carrying amount of a regulatory asset should be reduced to the extent that the asset has been impaired with impairment judged the same as for enterprises in general; the provisions of [Statement 121] nullify that consensus.

B60. Paragraphs 129-134 of Statement 121 discussed approaches considered and the basis for the Board's conclusion:

> The Board considered several approaches to recognizing and measuring the impairment of long-lived assets and identifiable intangibles of rate-regulated enterprises. One approach the Board considered was to apply paragraph 7 of FASB Statement No. 90, *Regulated Enterprises—Accounting for Abandonments and Disallowances of Plant Costs,* to all assets of a regulated enterprise and not just to costs of recently completed plants. That paragraph requires that an impairment loss be recognized when a disallowance is probable and the amount can be reasonably estimated. If a regulator explicitly disallows a certain dollar amount of plant costs, an impairment loss should be recognized for that amount. If a regulator explicitly but indirectly disallows plant costs (for example, by excluding a return on investment on a portion of plant costs), an impairment loss should be recognized for the effective disallowance by estimating the expected future cash flows that have been disallowed as a result of the regulator's action and then computing the present value of those cash flows. That approach would recognize a probable disallowance as an impairment loss, the amount of the loss would be the discounted value of the expected future cash flows disallowed, and the discount rate would be the same as the rate of return used to estimate the expected future cash flows.
>
> A second approach the Board considered was to supersede paragraph 7 of Statement 90 and apply this Statement's requirements to all plant costs. A disallowance would result in costs being excluded from the rate base. The recognition and measurement requirements of this Statement would be applied to determine whether an impairment loss would be recognized for financial reporting purposes.
>
> A third approach the Board considered was to apply the general impairment provisions of this Statement to all assets of a regulated enterprise except for disallowances of costs of recently completed plants, which would continue to be covered by paragraph 7 of Statement 90. A disallowance would result in the exclusion of costs from the rate base.

That disallowance would result in an impairment loss for financial reporting purposes if the costs disallowed relate to a recently completed plant. If the costs disallowed do not relate to a recently completed plant, the recognition and measurement requirements of this Statement would be applied to determine whether and how much of an impairment loss would be recognized for financial reporting purposes.

A fourth approach the Board considered was to apply the general impairment standard to all assets of a regulated enterprise except (a) regulatory assets that meet the criteria of paragraph 9 of Statement 71 and (b) costs of recently completed plants that are covered by paragraph 7 of Statement 90. Impairment of regulatory assets capitalized as a result of paragraph 9 of Statement 71 would be recognized whenever the criteria of that paragraph are no longer met.

The Board decided that the fourth approach should be used in accounting for the impairment of all assets of a rate-regulated enterprise. The Board amended paragraph 9 of Statement 71 to provide that a rate-regulated enterprise should charge a regulatory asset to earnings if and when that asset no longer meets the criteria in paragraph 9(a) and (b) of that Statement. The Board also amended paragraph 10 of Statement 71 to require that a rate-regulated enterprise recognize an impairment for the amount of costs excluded when a regulator excludes all or part of a cost from rates, even if the regulator allows the rate-regulated enterprise to earn a return on the remaining costs allowed.

The Board believes that because a rate-regulated enterprise is allowed to capitalize costs that enterprises in general would otherwise have charged to expense, the impairment criteria for those assets should be different from enterprises in general. The Board believes that symmetry should exist between the recognition of those assets and the subsequent impairment of those assets. The Board could see no reason that an asset created as a result of regulatory action could not be impaired by the actions of the same regulator. Other assets that are not regulatory assets covered by Statement 71 or recently completed plant costs covered by Statement 90, such as older plants or other nonregulatory assets of a rate-regulated enterprise, would be covered by the general provisions of this Statement.

B61. Paragraph 135 of Statement 121 further clarified the accounting for previously disallowed costs that are subsequently allowed by a regulator:

The Board decided that previously disallowed costs that are subsequently allowed by a regulator should be recorded as an asset, consistent with the classification that would have resulted had those costs initially been included in allowable costs. Thus, plant costs subsequently allowed should be classified as plant assets, whereas other costs (expenses) subsequently allowed should be classified as regulatory assets. The Board amended Statement 71 to reflect this decision. The Board decided to restore the original

classification because there is no economic change to the asset—it is as if the regulator never had disallowed the cost. The Board determined that restoration of cost is allowed for rate-regulated enterprises in this situation, in contrast to other impairment situations, because the event requiring recognition of the impairment resulted from actions of an independent party and not management's own judgment or determination of recoverability.

Long-Lived Assets to Be Disposed Of Other Than by Sale

B62. In Statement 121, the Board decided that the provisions for long-lived assets to be disposed of, including the requirement to cease depreciating (amortizing) a long-lived asset when it is classified as held for disposal, should be applied to all long-lived assets to be disposed of, whether by sale or abandonment. During its deliberations leading to the Exposure Draft, the Board reconsidered that decision, noting that its rationale for not depreciating (amortizing) a long-lived asset to be disposed of by sale does not apply to a long-lived asset to be disposed of other than by sale. Such transactions include the abandonment of a long-lived asset, as well as the exchange of a long-lived asset for a similar productive long-lived asset and the distribution of a long-lived asset to owners in a spinoff (including a pro rata distribution to owners of shares of a subsidiary or other investee company that has been or is being consolidated or that has been or is being accounted for under the equity method) or other form of reorganization or liquidation or in a plan that is in substance the rescission of a prior business combination covered by APB Opinion No. 29, *Accounting for Nonmonetary Transactions.*

B63. Specifically, the Board observed that to the extent the carrying amount of a long-lived asset to be disposed of by abandonment is recoverable, it will be recovered principally through operations, rather than through the disposal transaction. Additionally, the accounting guidance in Opinion 29 for the exchange of a similar productive long-lived asset and for the distribution of a long-lived asset to owners in a spinoff is based on the carrying amount of the asset exchanged or distributed. The Board concluded that the Opinion 29 guidance is more consistent with the accounting for a long-lived asset to be held and used than for a long-lived asset to be sold. Thus, the Board decided that a long-lived asset to be disposed of other than by sale should continue to be classified as held and used and depreciated (amortized) until it is abandoned, exchanged, or distributed.

B64. Some respondents to the Exposure Draft said that there is no conceptual difference between sale and other disposal transactions and that the provisions of this Statement for long-lived assets to be disposed of by sale should be applied to other disposal transactions. During its redeliberations of the Exposure Draft, the Board affirmed its conclusion that a long-lived asset to be disposed of other than by sale should continue to be classified as held and used and depreciated (amortized) until disposed of for the reasons discussed in paragraph B63. Accordingly, paragraphs 7—26 of this Statement, except as modified by paragraph 29, apply to that asset or its asset group as previously determined on a held-and-used basis until it is disposed of. If that asset will be disposed of together with other assets and liabilities as a group and the group is a component of an entity, paragraphs 41—44 of this Statement apply to that disposal group when it is disposed of.

Long-Lived Asset to Be Abandoned

B65. The Board decided that if a long-lived asset that is being used is to be abandoned before the end of its previously estimated useful life, depreciation estimates should be revised in accordance with Opinion 20 to reflect the use of the asset over that shortened period. The Board reasoned that because the continued use of a long-lived asset demonstrates the presence of service potential, the immediate write-down of the asset to zero generally is inappropriate. A few respondents to the Exposure Draft suggested that the Board provide additional guidance for revising those depreciation estimates under Opinion 20. However, the Board decided not to address that issue because depreciation issues are beyond the scope of this Statement.

Long-Lived Asset to Be Exchanged for a Similar Productive Long-Lived Asset or to Be Distributed to Owners in a Spinoff

B66. Under Opinion 29 the accounting for the exchange of a long-lived asset for a similar productive long-lived asset and the distribution of a long-lived asset to owners in a spinoff is based on the recorded amount, "after reduction, if appropriate, for an indicated impairment of value" of the asset exchanged (paragraph 21) or distributed (paragraph 23). After Statement 121 was issued, questions emerged on how to determine "an indicated impairment of value" of the asset exchanged or distributed. The primary issue was whether to apply an undiscounted cash flows recoverability test and, if so, at what level. The EITF discussed the issue in Issue No. 96-2, "Impairment Recognition When a Nonmonetary Asset Is Exchanged or Is Distributed to Owners and Is Accounted for at the Asset's Recorded Amount," but did not reach a consensus.

B67. The Board did not redeliberate the Opinion 29 guidance for exchanges of similar productive assets or spinoffs. This Statement, however, resolves Issue 96-2 by requiring that an indicated impairment of value of a long-lived asset that is exchanged for a similar productive long-lived asset or distributed to owners in a spinoff be recognized if the carrying amount of the asset (disposal group) exceeds its fair value at the disposal date. The accounting guidance in Opinion 29 for an exchange of similar productive assets and for a distribution to owners in a spinoff is based on recorded amounts and not fair value. The Board concluded that using recorded amounts is more consistent with the accounting for a long-lived asset to be held and used than for a long-lived asset to be sold. For that reason, the Board believes that an undiscounted cash flows recoverability test should apply prior to the disposal date. The estimates of future cash flows used in that test are based on the use of the asset for its remaining useful life, assuming that the disposal transaction will not occur.

B68. The Board acknowledges the view of some respondents to the Exposure Draft that because the exchange of a long-lived asset for a similar productive long-lived asset does not culminate an earning process, an undiscounted cash flows recoverability test should apply up through the disposal date. The Board observed that the distribution of a long-lived asset to owners also does not culminate an earning process. However, the Board concluded that those disposal transactions are significant economic events that should result in recognition of an impairment loss if the carrying amount of the

asset (disposal group) exceeds its fair value at the disposal date. The Board decided that because the fair value of the asset (disposal group) will be determined in connection with the decision to dispose, the practical expedient of an undiscounted cash flows recoverability test should not apply at the disposal date.

B69. This Statement amends Opinion 29 to require that an indicated impairment of value of a long-lived asset that is exchanged for a similar productive long-lived asset or distributed to owners in a spinoff be recognized if the carrying amount of the asset (disposal group) exceeds its fair value at the disposal date. It also amends paragraph 44(a) of FASB Statement No. 19, *Financial Accounting and Reporting by Oil and Gas Producing Companies,* to extend that requirement to transactions involving the exchange of proved oil- and gas-producing assets that are being accounted for by the successful-efforts method of accounting.

Long-Lived Assets to Be Disposed Of by Sale

Recognition

B70.

Plan-of-Sale Criteria

As a basis for determining when to classify a long-lived asset (disposal group) as held for sale, Statement 121 required a commitment to a plan to sell the asset (disposal group) but did not specify factors beyond that commitment that should be considered. Consequently, in implementing Statement 121, questions emerged about when to classify a long-lived asset (disposal group) as held for sale. Because a long-lived asset is not depreciated (amortized) while it is classified as held for sale, those questions raised concerns that an entity could improve its operating results by asserting a commitment to a plan to sell a long-lived asset (disposal group) at a future date. Because of those concerns, the Board decided that this Statement should specify criteria for determining when an entity's commitment to a plan to sell a long-lived asset (disposal group) is sufficient for purposes of classifying the asset (disposal group) as held for sale.

B71. The Board decided that a long-lived asset (disposal group) should be classified as held for sale in the period in which all of the criteria in paragraph 30 are met, except as permitted in limited situations by paragraphs 31 and 32. In developing those criteria, the Board considered the criteria established by Opinion 30 for a measurement date and by Issue 94-3 for a commitment date. Certain of those criteria are incorporated in paragraphs 30(a), (c), and (f) of this Statement. Additional criteria established by this Statement are incorporated in paragraphs 30(b), (d), and (e). The Board concluded, and many respondents agreed, that those criteria should enable entities to determine consistently when to classify assets (disposal groups) as held for sale.

Available for immediate sale

B72. Paragraph 30(b) of this Statement establishes a criterion that to qualify for classification as held for sale, a long-lived asset (disposal group) must be available for immediate sale in its present condition. The Board concluded that an asset (disposal group) is available for immediate sale if an entity currently has the intent and ability to transfer the asset (disposal group) to a buyer in its present condition within a period that is usual and customary for sales of such assets. In developing that criterion, the Board decided not to preclude a long-lived asset (disposal group) from being classified as held for sale while it is being used. The Board reasoned that if a long-lived asset (disposal group) is available for immediate sale, the remaining use of the asset (disposal group) is incidental to its recovery through sale and that the carrying amount of the asset (disposal group) will be recovered principally through sale. The Board also decided not to require a binding agreement for a future sale. The Board concluded that such a requirement would unduly delay reporting the effects of a commitment to a plan to sell a long-lived asset (disposal group).

Maximum one-year holding period

B73.

Maximum one-year holding period

In Statement 121, the Board decided not to limit the holding period for a long-lived asset (disposal group) classified as held for sale, principally to allow for situations in which environmental concerns extend the period required to complete a sale beyond one year. In this Statement, the Board reconsidered that decision, noting that in some other situations, a long-lived asset could, as a result, be inappropriately classified as held for sale and not depreciated (amortized) for an extended period. Consequently, paragraph 30(d) of this Statement establishes a maximum one-year holding period for a long-lived asset (disposal group) classified as held for sale. The Board concluded that for a long-lived asset (disposal group) covered by this Statement, a one-year period is a reasonable period within which to assess the probability of a future sale, noting that the APB previously reached a similar conclusion in Opinion 30 for the disposal of a segment. [31]

B74. Because in some situations events or circumstances might extend the period required to complete the sale of a long-lived asset (disposal group) beyond one year, the Board considered whether and, if so, when to permit an exception to the one-year requirement. The Board decided that a delay in the period required to complete a sale should not preclude a long-lived asset (disposal group) from being classified as held for sale if the delay is caused by events or circumstances beyond an entity's control and there is sufficient evidence that the entity remains committed to its plan to sell the asset (disposal group). The Board decided to permit an exception in such situations. The Board concluded that the usefulness and clarity of financial statements would not be improved by having long-lived assets (disposal groups) moving in and out of the held-for-sale classification.

B75. A few respondents to the Exposure Draft suggested that the Board permit an exception to the one-year requirement in all situations in which a long-lived asset is acquired through foreclosure by

incorporating in this Statement the held-for-sale presumption in paragraph 10 of AICPA Statement of Position 92-3, *Accounting for Foreclosed Assets,* which stated:

> Most enterprises do not intend to hold foreclosed assets for the production of income but intend to sell them; in fact, some laws and regulations applicable to financial institutions require the sale of foreclosed assets. Therefore, under this SOP, it is presumed that foreclosed assets are held for sale and not for the production of income.

Those respondents said that in situations in which an entity acquires a long-lived asset through foreclosure, circumstances attendant to the foreclosure often extend the period required to complete the sale beyond one year. The Board concluded that this Statement sufficiently addresses the need for an exception to the one-year requirement for all long-lived assets (disposal groups) covered by this Statement, whether previously held and used or newly acquired. To be consistent with an objective of developing a single accounting model for long-lived assets to be disposed of by sale, the Board decided not to incorporate the held-for-sale presumption in SOP 92-3.

Market price reasonable in relation to current fair value

B76. Paragraph 30(e) of this Statement establishes a criterion that to qualify for classification as held for sale, an entity must be actively marketing a long-lived asset (disposal group) at a price that is reasonable in relation to its current fair value. The Board believes that the price at which a long-lived asset (disposal group) is being marketed is indicative of whether the entity currently has the intent and ability to sell the asset (disposal group). A market price that is reasonable in relation to fair value indicates that the asset (disposal group) is available for immediate sale, whereas a market price in excess of fair value indicates that the asset (disposal group) is not available for immediate sale.

Commitment to a Plan to Sell a Long-Lived Asset after the Balance Sheet Date but before Issuance of Financial Statements

B77. In implementing Statement 121, questions emerged about the required accounting if an entity commits to a plan to sell a long-lived asset after the balance sheet date but before issuance of the financial statements. Prior to this Statement, Opinion 30 and EITF Issue No. 95-18, "Accounting and Reporting for a Discontinued Business Segment When the Measurement Date Occurs after the Balance Sheet Date but before the Issuance of Financial Statements," provided related guidance for a segment of a business (as defined in that Opinion). In an expected loss situation, Opinion 30 required that the financial statements be adjusted if the loss "provides evidence of conditions that existed at the date of such statements and affects estimates inherent in the process of preparing them" (footnote 5). Issue 95-18 later incorporated the presumption that an expected loss is evidence of a loss existing at the balance sheet date, unless the subsequent decision to dispose of the segment results from a discrete and identifiable event that occurs unexpectedly after the balance sheet date.

B78. The Board decided that if an entity commits to a plan to sell a long-lived asset after the balance sheet date but before issuance of the financial statements, the asset should continue to be classified as held and used. The Board concluded that retroactively classifying the asset as held for sale would be inconsistent with having specified criteria for determining when an entity's commitment to a plan to sell a long-lived asset (disposal group) is sufficient for purposes of classifying the asset (disposal group) as held for sale. Similarly, the Board concluded that if the asset (asset group) is tested for recoverability on a held-and-used basis as of the balance sheet date, the estimates of future cash flows used in that test should consider the likelihood of possible outcomes that existed at the balance sheet date, including the assessment of the likelihood of the future sale of the asset. That assessment made as of the balance sheet date should not be revised for a decision to sell the asset after the balance sheet date. Therefore, this Statement nullifies Issue 95-18.

B79. The Board considered the view of some respondents to the Exposure Draft that in an expected loss situation, a requirement to classify the asset as held and used could unduly delay recognition of a loss that existed at the balance sheet date. The Board concluded that, on balance, the benefits of having well-defined criteria for when to classify a long-lived asset as held for sale outweigh that concern, noting that the situation referred to by respondents can arise whenever a long-lived asset is expected to be sold but there is no commitment to a plan of sale. The Board observed that if the plan-of-sale criteria are met after the balance sheet date but before issuance of the financial statements, the entity could be required to perform a recoverability test in accordance with paragraph 8(f). In that situation, application of the recoverability test as well as any fair value assessment would be based on facts and circumstances existing at the balance sheet date and could result in an impairment adjustment as of the balance sheet date. The Board agreed that if prior to meeting the plan-of-sale criteria the entity had previously tested the asset (asset group) for impairment on a held-and-used basis at the balance sheet date, it would be inappropriate to undertake a new recoverability test.

Measurement

B80.

Lower of Carrying Amount or Fair Value Less Cost to Sell

This Statement retains the requirement of Statement 121 to measure a long-lived asset (disposal group) classified as held for sale at the lower of its carrying amount or fair value less cost to sell. In contrast to a long-lived asset (asset group) to be held and used, a long-lived asset (disposal group) classified as held for sale will be recovered principally through sale rather than through operations. Therefore, accounting for that asset (disposal group) is a process of valuation rather than allocation. The asset (disposal group) is reported at the lower of its carrying amount or fair value less cost to sell, and fair value less cost to sell is evaluated each period to determine if it has changed. Losses (and gains, as permitted by paragraph 37) are reported as adjustments to the carrying amount of a long-lived asset while it is classified as held for sale.

Cost to sell

B81. The Exposure Draft proposed to retain the requirements of Statement 121 for determining cost to sell. Those requirements were discussed in paragraph 116 of Statement 121, which stated:

> The Board concluded that the cost to sell an asset to be disposed of generally includes the incremental direct costs to transact the sale of the asset. Cost to sell is deducted from the fair value of an asset to be disposed of to arrive at the current value of the estimated net proceeds to be received from the asset's future sale. The Board decided that costs incurred during the holding period to protect or maintain an asset to be disposed of generally are excluded from the cost to sell an asset because those costs usually are not required to be incurred in order to sell the asset. However, the Board believes that costs required to be incurred under the terms of a contract for an asset's sale as a condition of the buyer's consummation of the sale should be included in determining the cost to sell an asset to be disposed of.

B82. Some respondents to the Exposure Draft noted that those requirements for determining cost to sell did not limit cost to sell to the incremental direct costs to transact a sale. They said that, as a result, cost to sell could be interpreted as including normal operating costs (losses) expected to be incurred while a long-lived asset (disposal group) is classified as held for sale, which they did not believe was consistent with the Board's intent. To convey its intent more clearly, the Board decided to revise those requirements to limit cost to sell in all circumstances to the incremental direct costs to transact the sale. Accordingly, costs that are "required to be incurred under the terms of a contract for an asset's sale as a condition of the buyer's consummation of the sale," as referred to in paragraph 116 of Statement 121, would be excluded. In addition, expected future operating losses that marketplace participants would not similarly consider in their estimates of the fair value less cost to sell of a long-lived asset (disposal group) classified as held for sale also would be excluded. In this Statement, the Board clarified that such losses should not be indirectly recognized as part of an expected loss on sale by reducing the carrying amount of the asset (disposal group) to an amount less than its current fair value less cost to sell. Excluding such losses from the measurement of a long-lived asset (disposal group) classified as held for sale supersedes the net realizable value measurement approach previously required under Opinion 30.

Ceasing depreciation (amortization)

B83. This Statement retains the requirement of Statement 121 to cease depreciating (amortizing) a long-lived asset when it is classified as held for sale and measured at the lower of its carrying amount or fair value less cost to sell. Some respondents disagreed with that requirement as also proposed in the Exposure Draft. They said that not depreciating (amortizing) a long-lived asset that is being used is inconsistent with the basic principle that the cost of a long-lived asset should be allocated over the period during which benefits are obtained from its use. The Board considered that view but affirmed its conclusion in Statement 121 that depreciation accounting is inconsistent with the use of a lower of

carrying amount or fair value measure for a long-lived asset classified as held for sale because, as previously stated, accounting for that asset is a process of valuation rather than allocation.

B84. Some respondents also said that not depreciating (amortizing) a long-lived asset that is being used while it is classified as held for sale hinders the comparability of operating results during that period. They said that the comparability of operating results (reported in both continuing operations and in discontinued operations) between periods is more important than the valuation of the asset while it is classified as held for sale. The Board also considered those concerns but observed that in situations where the carrying amount of the asset (disposal group) is written down to its fair value less cost to sell, continuing to depreciate (amortize) the asset reduces its carrying amount below its fair value less cost to sell. The Board concluded that it would be inappropriate to reduce the carrying amount of the asset to an amount below its fair value. The Board further observed that because fair value less cost to sell is required to be evaluated each period, a subsequent decline in the fair value of the asset while it is classified as held for sale will be appropriately reflected in the period of decline.

Long-Lived Asset Acquired in a Purchase Business Combination

B85. Prior to the issuance of Statement 121, [Group eitf.87-11]EITF Issue No. 87-11, "Allocation of Purchase Price to Assets to Be Sold," provided guidance on the accounting for a disposal group to be sold that was newly acquired in a purchase business combination, including, but not limited to, a segment of a business covered by Opinion 30. The guidance in Issue 87-11 extended the measurement provisions of Opinion 30 in determining the purchase price allocation under Opinion 16. Accordingly, the disposal group was measured at the lower of its carrying amount or net realizable value, adjusted for future operating losses.

B86. Statement 121 subsequently required that a long-lived asset (disposal group) to be sold other than a segment of a business covered by Opinion 30 be measured at the lower of its carrying amount or fair value less cost to sell. However, it did not nullify Issue 87-11 to reflect that change for a long-lived asset (disposal group) to be sold that was newly acquired in a purchase business combination. Consequently, in implementing Statement 121, questions emerged about the impact of that Statement on Issue 87-11. The primary issue was whether and, if so, how the measurement guidance provided by Issue 87-11 should be applied to a long-lived asset (disposal group) that was newly acquired in a purchase business combination. A related issue was how to account for the results of operations of the asset (disposal group) while it was classified as held for sale and whether future operating losses could be considered in measuring the fair value less cost to sell of the asset (disposal group). The EITF discussed that issue in Issue No. 95-21, "Accounting for Assets to Be Disposed Of Acquired in a Purchase Business Combination," but did not reach a consensus.

B87. This Statement resolves Issue 95-21 by requiring that a long-lived asset (disposal group) classified as held for sale be measured at the lower of its carrying amount or fair value less cost to sell, whether previously held and used or newly acquired. This Statement also requires that the results of operations of a long-lived asset (disposal group) classified as held for sale be recognized in

the period in which those operations occur, whether reported in continuing operations or in discontinued operations. Therefore, this Statement nullifies Issue 87-11.

Grouping Assets and Liabilities to Be Sold

B88. During its deliberations leading to the Exposure Draft, the Board noted that long-lived assets often are sold together with other assets and liabilities as a group. The Board observed that, as is the case for long-lived assets to be held and used, measuring assets and liabilities classified as held for sale as a group raises the issue of when, if ever, it is appropriate to offset unrealized losses on some assets (liabilities) with unrealized gains on other assets (liabilities). In addition, because liabilities often can be settled separately from the sale of assets, measuring assets and liabilities classified as held for sale as a group also could permit an entity to achieve a desired result by selectively designating the liabilities to be included in a disposal group. To prevent grouping from being used inappropriately to offset unrealized losses with unrealized gains, the Board initially decided that the plan-of-sale criteria should address when assets and liabilities should be classified as held for sale and measured as a group.

B89. The Exposure Draft proposed a criterion that, to classify assets and liabilities as held for sale as a group, the estimated proceeds expected to result from the sale of the group must exceed those that would result from the sale of the assets of the group individually. The Board reasoned that because estimated proceeds reflect the underlying economics of an expected sale transaction, that criterion would provide evidence of an entity's commitment to a plan to sell assets (and liabilities) as a group. Several respondents to the Exposure Draft disagreed with a criterion based on estimated net proceeds, stating that proceeds alone do not necessarily reflect the total (direct and indirect) economic benefit that may result from the sale of assets (and liabilities) as a group. They said that in many situations, valid reasons may exist to sell assets and liabilities as a group even though the estimated net proceeds expected to result from the sale of that group may be less than those that would result from the sale of the assets individually. They also said that in other situations, particularly those in which several assets are to be sold as a group, a requirement to estimate the net proceeds that would result from the sale of assets individually would be unduly burdensome and costly.

B90. Upon reconsideration, the Board decided to eliminate a criterion based on estimated net proceeds. Instead, the Board decided that assets and liabilities should be classified as held for sale as a group if (a) the assets will be sold as a group in a single transaction and (b) the liabilities are directly related to the assets and will be transferred in that transaction. The Board concluded that if assets and liabilities will be sold as a group in a single transaction, accounting for those assets and liabilities as held for sale as a group is appropriate.

Allocation of a Loss

B91. During its deliberations leading to the Exposure Draft, the Board decided that this Statement should provide guidance for allocating a loss recognized for a disposal group classified as held for

sale that includes assets and liabilities, principally to facilitate the requirement of this Statement to present those assets and liabilities separately in the asset and liability sections of the statement of financial position. The Exposure Draft proposed that a loss be allocated, first, by adjusting the carrying amounts of the liabilities of the group to their fair values and, then, by adjusting the carrying amounts of the long-lived assets of the group by the remaining amount, if any. The Board reasoned that the fair values of the liabilities included in a disposal group generally would be determinable and that the presentation of those liabilities at their fair values would improve the usefulness of the information provided by the statement of financial position.

B92. Upon further consideration, the Board subsequently decided not to retain that allocation method. Instead, the Board decided that because other accounting pronouncements prescribe the accounting for assets and liabilities not covered by this Statement that are included in a disposal group, a loss recognized for a disposal group classified as held for sale should reduce only the carrying amounts of the long-lived assets of the group. The Board concluded that the allocation method for a loss recognized for a disposal group classified as held for sale provides a reasonable basis for reporting both the assets and liabilities of the disposal group in the statement of financial position.

Changes to a Plan of Sale

B93.

Reversal of a Decision to Sell a Long-Lived Asset Classified as Held for Sale

In implementing Statement 121, questions emerged about the required accounting if an entity subsequently decides not to sell a long-lived asset classified as held for sale. Prior to this Statement, other accounting pronouncements provided related guidance, but only for certain assets. If the asset previously was acquired through foreclosure, SOP 92-3 required that the asset be reclassified as held and used and measured at what would have been its carrying amount had the asset been continuously classified as held and used since the time of foreclosure. If the asset previously was acquired in a purchase business combination, EITF Issue No. 90-6, "Accounting for Certain Events Not Addressed in Issue No. 87-11 Relating to an Acquired Operating Unit to Be Sold," required that the asset be reclassified as held and used and measured as under SOP 92-3 if the subsequent decision not to sell was made within one year. If the asset was a segment accounted for as a discontinued operation under Opinion 30, EITF Issue No. 90-16, "Accounting for Discontinued Operations Subsequently Retained," provided guidance on the reclassification to continuing operations of amounts previously reported in discontinued operations.

B94. The Board decided that a long-lived asset to be reclassified as held and used should be measured at the lower of (a) its fair value at the date of the subsequent decision not to sell or (b) its carrying amount on a held-and-used basis at the date of the decision to sell, adjusted for any depreciation (amortization) expense that would have been recognized had the asset been continuously classified as held and used. Therefore, this Statement nullifies Issues 90-6 and 90-16.

B95. The Board considered but rejected an approach that, based on the guidance in SOP 92-3 and Issue 90-6, would have measured a long-lived asset to be reclassified as held and used at what would have been its carrying amount had the asset been continuously classified as held and used (held-and-used approach). The Board observed that a held-and-used approach could measure an asset previously written down to its fair value less cost to sell at an amount greater than its fair value at the date of the subsequent decision not to sell. That would be the case if, for example, the adjusted carrying amount of the asset is recoverable at the date of the subsequent decision not to sell. The Board concluded that it would be inappropriate to write up the carrying amount of a long-lived asset to an amount greater than its fair value based solely on an undiscounted cash flows recoverability test.

B96. Some respondents to the Exposure Draft suggested that the Board reconsider a held-and-used approach. They said that if the adjusted carrying amount of the asset is recoverable at the date of the subsequent decision not to sell, measuring the asset at its fair value would be inconsistent with the requirements of this Statement for other assets to be held and used, in particular, the requirement to write down the carrying amount of a long-lived asset (asset group) only if it is not recoverable. During its redeliberations of the Exposure Draft, the Board considered that inconsistency but again rejected that approach for the reason discussed in paragraph B95.

Removal of an Individual Asset or Liability from Disposal Group

B97. In view of its decision that assets and liabilities classified as held for sale should be measured as a group, the Board decided that this Statement should address the accounting if an entity subsequently removes an individual asset or liability from a disposal group previously classified as held for sale. The Board considered situations in which an entity decides not to sell an individual asset of the group, decides to sell an individual asset separately from the group, or settles before its maturity an individual liability of the group.

B98. The Exposure Draft would have required that the remaining long-lived assets of the disposal group be measured individually at the lower of their carrying amounts or fair values less cost to sell whenever an individual asset or liability is removed from the group. Several respondents to the Exposure Draft disagreed with that proposed requirement. They said that in many situations, valid reasons may exist for removing an individual asset or liability from a disposal group that have no bearing on an entity's intent and ability to sell the remaining assets and liabilities as a group. They also said that in other situations, particularly those in which several long-lived assets are included in a disposal group, a requirement to measure those assets individually would be unduly burdensome and costly.

B99. The Board considered those concerns raised by respondents. The Board decided that the remaining long-lived assets of the disposal group should be measured individually at the lower of their fair values less cost to sell only if the plan-of-sale criteria in paragraph 30 are no longer met for that group. The Board concluded that those criteria provide sufficient evidence of a commitment to a plan to sell the remaining assets and liabilities as a group and that continuing to account for those assets

and liabilities as held for sale as a group is appropriate. In addition, the Board observed that for some disposal groups, there may not be significant offsetting issues.

Reporting and Disclosure of Long-Lived Assets (Disposal Groups) to Be Disposed Of

Reporting Discontinued Operations

B100. Prior to this Statement, guidance on reporting discontinued operations was provided by Opinion 30, which limited that reporting to the results of operations of a segment of a business to be disposed of. Paragraph 13 of Opinion 30 defined a segment of a business as a "component of an entity whose activities represent a separate major line of business or class of customer." Opinion 30 required that the results of operations of a segment to be disposed of be reported in discontinued operations, separately from continuing operations, in the period in which the measurement date occurred and in prior periods presented.

B101. During its deliberations leading to the Exposure Draft, the Board concluded that reporting discontinued operations separately from continuing operations provides investors, creditors, and others with information that is relevant in assessing the effects of disposal transactions on the ongoing operations of an entity. FASB Concepts Statement No. 1, *Objectives of Financial Reporting by Business Enterprises,* states, ". . . financial reporting should provide information to help investors, creditors, and others assess the amounts, timing, and uncertainty of prospective net cash inflows to the related enterprise" (paragraph 37; footnote reference omitted). FASB Concepts Statement No. 5, *Recognition and Measurement in Financial Statements of Business Enterprises,* further states:

> Classification in financial statements facilitates analysis by grouping items with essentially similar characteristics and separating items with essentially different characteristics. Analysis aimed at objectives such as predicting amounts, timing, and uncertainty of future cash flows requires financial information segregated into reasonably homogenous groups. For example, components of financial statements that consist of items that have similar characteristics in one or more respects, such as continuity or recurrence, stability, risk, and reliability, are likely to have more predictive value than if their characteristics are dissimilar. [paragraph 20]

B102. The Board observed that the Opinion 30 definition of a segment of a business has been effective in distinguishing disposal transactions that are likely to have a significant effect on the ongoing operations of the entity. However, the Board also observed that the disposal of other disposal groups that are not reported separately in discontinued operations because they are not segments of a business covered by Opinion 30 also might have a significant effect on the ongoing operations of the entity. To improve the usefulness of the information provided to users, the Board decided to broaden the reporting of discontinued operations, consistent with the recommendation made by the AICPA Special Committee on Financial Reporting in its 1994 report, *Improving Business Reporting—A Customer Focus,* which states:

> Discontinued operations is defined in current practice as a component of a company whose activities represent a separate major line of business or class of customer. That definition should be broadened to include all significant discontinued operations whose assets and results of operations and activities can be distinguished physically and operationally and for business-reporting purposes. [page 138]

B103. The Exposure Draft proposed to broaden the reporting of discontinued operations to include the results of operations of a significant component of an entity, which was defined as a disposal group with operations and assets that can be clearly distinguished physically, operationally, and for financial reporting purposes from the rest of the entity. However, the Board chose not to define the term *significant* to allow for judgment in determining whether, based on facts and circumstances unique to a particular entity, a disposal transaction should be reported in discontinued operations.

B104. Nearly all of the respondents to the Exposure Draft that commented on the proposed requirements for reporting discontinued operations agreed with the Board's decision to broaden the reporting of discontinued operations. However, many of those respondents said that to promote consistent application of the Statement, the Board should provide additional guidance for determining the significance of a component of an entity. Many respondents also referred to the interaction of the significance notion proposed in the Exposure Draft with the materiality concept discussed in SEC Staff Accounting Bulletin No. 99, *Materiality*. Those respondents asked the Board to clarify whether the criteria for assessing materiality in SAB 99 also should apply in assessing significance.

B105. During its redeliberations of the Exposure Draft, the Board decided to eliminate the significance notion from the definition of a component of an entity. The Board concluded that the requirements for reporting discontinued operations should not focus on whether a component of an entity is significant or otherwise incorporate a quantitative criterion. Instead, the Board concluded that those requirements should focus on whether a component of an entity has operations and cash flows that can be clearly distinguished from the rest of the entity, consistent with its objective of broadening the reporting of discontinued operations.

B106. The Board also decided to eliminate the requirement proposed in the Exposure Draft that assets be eliminated in a disposal transaction as a condition for reporting discontinued operations. The Board observed that the emphasis on assets would preclude a component of an entity from being reported as a discontinued operation unless the disposal transaction involved all of the assets of the component—even if the component is separate business and was an operating segment under FASB Statement No. 131, *Disclosures about Segments of an Enterprise and Related Information*. The Board also decided to eliminate the Exposure Draft's reference to disposal activities that are incident to the evolution of an entity's business, which would have prohibited those disposal activities from being reported as discontinued operations. As noted by some respondents, many disposal transactions could be viewed as incident to the evolution of an entity's business.

B107. As revised, the requirements for reporting discontinued operations focus on whether a component of an entity has operations and cash flows that can be clearly distinguished from the rest of the entity and whether those operations and cash flows have been (or will be) eliminated from the ongoing operations of the entity in the disposal transaction. Given the emphasis on operations, the Board decided to incorporate as a condition for reporting discontinued operations the requirement that an entity have no significant continuing involvement in the operations of a component after it is disposed of. The Board concluded that it would be inappropriate to report a disposal transaction as a discontinued operation in circumstances in which an entity will have significant continuing involvement in the operations of a component after it is disposed of.

B108. During its deliberations of this Statement, the Board considered but rejected other approaches that would have reported in discontinued operations the results of operations of other asset groups as defined in other existing accounting pronouncements. One approach would have used the definition of an *operating segment* in paragraph 10 of Statement 131. Another approach would have used the definition of a *reporting unit* in Statement 142. Yet another approach would have used the definition of a *business* in EITF Issue No. 98-3, "Determining Whether a Nonmonetary Transaction Involves Receipt of Productive Assets or of a Business." The Board concluded that those approaches would not necessarily broaden the reporting of discontinued operations beyond that previously permitted by Opinion 30.

B109. The Board acknowledges that judgment will be required in distinguishing components of an entity from other disposal groups. However, the Board affirmed its conclusion in the Exposure Draft that, on balance, the advantages of broadening the presentation of discontinued operations (primarily enhanced decision usefulness) outweigh the disadvantages of broadening that presentation (primarily the possibility that the use of inconsistent judgments will affect the comparability of information reported about disposal transactions).

Subsequent Adjustments to Discontinued Operations

B110. This Statement specifies requirements for reporting in discontinued operations adjustments in the current period that are related to the disposal of a component of an entity in a prior period. Those requirements carry forward certain of the provisions of other accounting pronouncements relating to the disposal of an Opinion 30 segment that are still relevant.

B111. Paragraphs 44(a) and (b) of this Statement refer to adjustments relating to the resolution of contingencies that arise pursuant to the terms of the disposal transaction, as well as to those that arise from, and that are directly related to, the operations of a component of an entity prior to its disposal. Paragraph 25 of Opinion 30 specified requirements for reporting in discontinued operations adjustments related to the disposal of a segment of a business that was reported in a prior period. It did not, however, specify the types of adjustments to which that reporting was intended to apply. Paragraph 25 of Opinion 30, as amended by FASB Statement No. 16, *Prior Period Adjustments,* stated:

> Circumstances attendant to disposals of a segment of a business and extraordinary items frequently require estimates, for example, of associated costs and occasionally of associated revenue, based on judgment and evaluation of the facts known at the time of first accounting for the event. Each adjustment in the current period of a loss on disposal of a business segment or of an element of an extraordinary item that was reported in a prior period should be separately disclosed as to year of origin, nature, and amount and classified separately in the current period in the same manner as the original item. If the adjustment is the correction of an error, the provisions of APB Opinion No. 20, *Accounting Changes,* paragraphs 36 and 37 should be applied.

B112. SEC Staff Accounting Bulletin No. 93, *Accounting and Disclosures Relating to Discontinued Operations,* clarified for public enterprises the reporting required by paragraph 25 of Opinion 30 as follows:

> The [SEC] staff believes that the provisions of paragraph 25 apply only to adjustments that are necessary to reflect new information about events that have occurred that becomes available prior to disposal of the business, to reflect the actual timing and terms of the disposal when it is consummated, and to reflect the resolution of contingencies associated with that business, such as warranties and environmental liabilities retained by the seller.

B113. Paragraph 44(c) of this Statement refers to adjustments (gains or losses) associated with the settlement of employee benefit plan obligations (pension, postemployment benefits other than pensions, and other postemployment benefits). Paragraph 3 of FASB Statement No. 88, *Employers' Accounting for Settlements and Curtailments of Defined Benefit Pension Plans and for Termination Benefits,* defines *settlement* as:

> . . . a transaction that (a) is an irrevocable action, (b) relieves the employer (or the plan) of primary responsibility for a pension benefit obligation, and (c) eliminates significant risks related to the obligation and the assets used to effect the settlement.

B114. In accordance with FASB Statement No. 43, *Accountingfor Compensated Absences,* Statement 88, and FASB Statement No. 106, *Employers' Accounting for PostretirementBenefits Other Than Pensions,* as amended by this Statement, settlement gains or losses should be recognized in the period in which the settlement occurs. Such gains or losses should be reported in discontinued operations if the settlement is directly related to the disposal of a component of an entity. The Board concluded that a settlement is directly related to the disposal of a component of an entity if (a) there is a demonstrated cause-and-effect relationship and (b) the settlement occurs no later than one year following the disposal transaction, unless it is delayed by events or circumstances beyond an entity's control.

B115. The requirement that a demonstrated cause-and-effect relationship exist incorporates guidance from Statement 88 related to the disposal of a segment of a business previously covered by Opinion 30. Specifically, the answer to Question 37 in the FASB Special Report, *A Guide to Implementation of Statement 88 on Employers' Accounting for Settlements and Curtailments of Defined Benefit Pension Plans and for Termination Benefits,* clarifies that a cause-and-effect relationship can be demonstrated if, for example, settlement of a pension benefit obligation for those employees affected by the sale is a necessary condition of the sale. It further clarifies that "in a disposal of all or a portion of a line of business, the timing of a settlement may be at the discretion of the employer. If the employer simply chooses to settle a pension benefit obligation at the time of the sale, the resulting coincidence of events is not, in and of itself, an indication of a cause-and-effect relationship. . . ." In addition, the Board reasoned that a decision to settle later than one year after the disposal date is unlikely to be a direct consequence of the disposal transaction unless that decision is delayed beyond one year by events and circumstances beyond an entity's control.

Reporting Disposal Gains or Losses in Continuing Operations

B116. This Statement retains the requirements of Statement 121 to report gains or losses recognized on long-lived assets (disposal groups) to be sold that are not components of an entity presented in discontinued operations as a component of income from continuing operations. In Statement 121, the Board concluded that the requirements for reporting gains or losses recognized on long-lived assets (disposal groups) to be sold should be consistent with the requirements for reporting impairment losses recognized on long-lived assets (asset groups) to be held and used. The Board affirmed that conclusion in this Statement.

Reporting Long-Lived Assets (Disposal Groups) Classified as Held for Sale

B117. Under Opinion 30, the assets and liabilities of a segment of a business accounted for as a discontinued operation were permitted to be offset and reported in the statement of financial position "net." Footnote 7 of paragraph 18(d) of Opinion 30 explained:

> Consideration should be given to disclosing this information by segregation in the balance sheet of the net assets and liabilities (current and noncurrent) of the discontinued segment. Only liabilities which will be assumed by others should be designated as liabilities of the discontinued segment.

B118. The Board noted that the reporting previously permitted under Opinion 30 is an exception to the general rule that assets and liabilities should not be offset. Assets and liabilities that an entity expects to transfer to a buyer in connection with the sale of assets do not meet the conditions for offsetting in FASB Interpretation No. 39, *Offsetting of Amounts Related to Certain Contracts*. Paragraph 5 of Interpretation 39 carries forward from APB Opinion No. 10, *Omnibus Opinion—1966,* the general principle that ". . . the offsetting of assets and liabilities in the balance sheet is improper except where a right of setoff exists." In addition, liabilities that an entity expects to transfer to a potential buyer in a

disposal transaction do not qualify for derecognition prior to being assumed by a purchaser (or otherwise settled). Paragraph 42 of Concepts Statement 6 states, "Once incurred, a liability continues as a liability of the entity until the entity settles it, or another event or circumstance discharges it or removes the entity's responsibility to settle it."

B119. The Board decided that the assets and liabilities of a disposal group classified as held for sale should not be offset in the statement of financial position. Accordingly, this Statement eliminates the exception to consolidation for a subsidiary for which control is likely to be temporary in paragraph 2 of ARB No. 51, *Consolidated FinancialStatements,* as amended by FASB Statement No. 94, *Consolidation of All Majority-Owned Subsidiaries*. The Board concluded that for any disposal group, information about the nature of both the assets and the liabilities of an asset group classified as held for sale is useful to users. Separately presenting those items in the statement of financial position provides information that is relevant and faithfully reports an entity's assets and its liabilities. Also, it segregates (a) those assets that have been measured at the lower of carrying amount or fair value less cost to sell and are not being depreciated from (b) those assets that are measured on a cost basis and are being depreciated. Therefore, this Statement requires that those assets and liabilities be presented separately in the asset and liability sections of the statement of financial position.

B120. The Board decided not to specify whether assets and liabilities held for sale should be classified as current or noncurrent in the statement of financial position. The Board concluded that because requirements for classifying assets and liabilities as current or noncurrent are provided by other accounting pronouncements, including ARB No. 43, Chapter 3, "Working Capital," further guidance in this Statement is not needed.

Disclosure

B121. The Board concluded that the financial statement disclosures previously required by paragraph 19 of Statement 121 and by paragraph 18 of Opinion 30 provide information that is useful in understanding the effects of the disposal of a long-lived asset (disposal group), including a component of an entity. In the Exposure Draft, the Board decided to retain those disclosures that were still relevant, including the requirement of Opinion 30 to disclose the proceeds from a disposal transaction. Some respondents to the Exposure Draft stated that disclosure of proceeds is of little value, noting that information about cash proceeds is now provided in the statement of cash flows. The Board agreed and decided to eliminate that requirement.

Amendment to Statement 67

B122. Statement 121 amended FASB Statement No. 67, *Accounting for Costs and Initial Rental Operations of Real Estate Projects,* to apply (a) its provisions for long-lived assets to be held and used to land to be developed and projects under development and (b) its provisions for long-lived assets to be disposed of to all completed real estate projects. At that time, the Board believed that assets under development were similar to long-lived assets to be held and used and that all

completed projects were "clearly assets to be disposed of." Paragraphs 124-126 of Statement 121 explained:

> The Exposure Draft proposed amending FASB Statements No. 66, *Accounting for Sales of Real Estate,* and No. 67, *Accounting for Costs and Initial Rental Operations of Real Estate Projects,* to change the lower of carrying amount or net realizable value measure to the lower of carrying amount or fair value less cost to sell measure. The Board initially decided to amend those Statements to conform the measurement of assets subject to those Statements with the measurement of assets to be disposed of.
>
> Some real estate development organizations objected to the proposed amendments in the Exposure Draft. They questioned why the scope of a project on long-lived assets included real estate development. They argued that real estate development assets are more like inventory and, therefore, the lower of carrying amount or net realizable value measure is more relevant. They did not address, however, why that measure would be more appropriate for real estate inventory than the lower of cost or market measure required for inventory under paragraph 4 of ARB No. 43, Chapter 4, "Inventory Pricing."
>
> Others disagreed with the inventory argument, asserting that although real estate development assets will eventually be disposed of, the provisions of the Exposure Draft would have required long-term real estate projects to recognize impairments far too frequently. They said that nearly all long-term projects, regardless of their overall profitability, would become subject to write-downs in their early stages of development, only to be reversed later in the life of the project due to revised estimates of fair value less cost to sell. The Board considered alternative approaches to measuring those real estate assets. The Board decided to apply the provisions of paragraphs 4—7 to land to be developed and projects under development and to apply paragraphs 15—17 to completed projects. The Board believes that assets under development are similar to assets held for use, whereas completed projects are clearly assets to be disposed of.

B123. In this Statement, the Board reconsidered the amendment to Statement 67, noting that a completed real estate project might be held available for occupancy (either for rental or for use in the entity's operations), in which case the asset would be similar to a long-lived asset to be held and used. The Board concluded that the provisions of this Statement for long-lived assets to be held and used should be applied to those real estate assets. Therefore, this Statement revises the previous amendment to Statement 67. The provisions of this Statement for long-lived assets to be held and used should be applied to completed real estate projects to be held available for occupancy. The provisions of this Statement for long-lived assets to be disposed of by sale should be applied to completed real estate projects to be sold.

B124. In implementing Statement 121, questions also emerged about the application of its impairment provisions to rental real estate property to be held and used. The primary issue was whether property-

related assets should be grouped together with the real estate property in determining whether to recognize, and in measuring, an impairment loss. Such property-related assets include accrued rent and deferred leasing costs recognized for operating leases in accordance with FASB Statement No. 13, *Accounting for Leases* (paragraph 19 and paragraph 5(m), as amended by FASB Statement No. 91, *Accounting for Nonrefundable Fees and Costs Associated with Originating or Acquiring Loans and Initial Direct Costs of Leases*), and FASB Technical Bulletin No. 85-3, *Accounting for Operating Leases with Scheduled Rent Increases*. The Board concluded that the provisions of paragraphs 10—14 of this Statement for grouping long-lived assets to be held and used should be applied to those real estate assets.

Benefits and Costs

B125. The mission of the FASB is to establish and improve standards of financial accounting and reporting for the guidance and education of the public, including preparers, auditors, and users of financial information. In fulfilling that mission, the Board endeavors to determine that a proposed standard will fill a significant need and that the costs imposed to meet that standard, as compared with other alternatives, are justified in relation to the overall benefits of the resulting information. Although the costs to implement a new standard may not be borne evenly, investors and creditors—both present and potential—as well as others, benefit from improvements in financial reporting, thereby facilitating the functioning of markets for capital and credit and the efficient allocation of resources in the economy.

B126. The Board determined that the requirements in this Statement will result in improved financial reporting. In Statement 121, the Board determined that the information provided to users of financial statements about long-lived assets could be improved by eliminating inconsistencies in the accounting and reporting of the impairment of those assets, thereby improving comparability in financial reporting. In this Statement, the Board determined that the information provided to users of financial statements about long-lived assets could be further improved by eliminating inconsistencies in the accounting and reporting of the disposal of those assets. As discussed in FASB Concepts Statement No. 2, *Qualitative Characteristics of Accounting Information,* providing comparable financial information enables users to identify similarities in and differences between two sets of economic events.

B127. The Board believes that the incremental costs of implementing this Statement have been minimized principally by retaining certain of the fundamental provisions of Statement 121 that are already in effect, in particular, its recognition and measurement provisions for the impairment of long-lived assets to be held and used and its measurement provisions for long-lived assets classified as held for sale. In addition, the Board decided to eliminate from this Statement certain of the proposals in the Exposure Draft that would have changed those existing requirements. Further, the provisions of this Statement generally are to be applied prospectively. Although there may be one-time costs for changes needed to apply the accounting requirements of this Statement, the benefits from more

consistent, comparable, and reliable information will be ongoing. The Board believes that the benefits of this Statement outweigh the costs of implementing it.

Effective Date and Transition

B128. The Board decided, except as follows, to require that this Statement be effective for financial statements issued for fiscal years beginning after December 15, 2001, and interim periods within those fiscal years. The Board decided that the provisions relating to disposal transactions should be effective for disposal transactions initiated by a commitment to a plan after the earlier of the effective date of this Statement or the entity's initial application of this Statement. The Board believes that that effective date provides sufficient time for entities and their auditors to analyze, interpret, and prepare for implementation of the provisions of this Statement.

B129. This Statement requires that impairment losses resulting from the initial application of its provisions for long-lived assets to be held and used be reported in the period in which the recognition criteria are initially applied and met based on facts and circumstances existing at that date. This Statement, like Statement 121, requires consideration of the continuing effect of events or changes in circumstances that occurred prior to the Statement's initial application. The Board recognizes the benefits of comparative financial statements but questions the ability of entities to reconstruct estimates of future cash flows based on assessments of events and circumstances as they existed in prior periods and without the use of hindsight.

B130. This Statement requires prospective application of its provisions for disposal transactions, including its provisions for the presentation of discontinued operations, and prohibits retroactive application.[32] The Board concluded that obtaining or developing the information necessary to apply this Statement retroactively could be burdensome for many entities. In addition, the Board observed that information about disposal transactions generally is disclosed by public enterprises (for example, in management's discussion and analysis and in press releases). Disposal transactions involving a component of an entity that are "grandfathered" under Statement 121 would continue to be reported in continuing operations, while disposal transactions involving a segment of a business that are "grandfathered" under Opinion 30 would continue to be reported in discontinued operations. The Board noted that segregating those disposal transactions would mitigate the effect of having different measurement approaches under Statement 121 and Opinion 30—one based on the fair value less cost to sell and the other based on net realizable value. The Board concluded that prospective application for disposal transactions is the most reasonable and practical transition approach when considered together with the need for consistent transition provisions for disposal transactions and the cost associated with retroactive application.

B131. The Board observed that for long-lived assets (disposal groups) to be sold that meet the criteria for a qualifying plan of sale when this Statement is initially applied, a cumulative-effect adjustment would not require an entity to retroactively derive fair values for those assets to be disposed of. Rather, the adjustment would be based on fair values at the date this Statement is initially applied. The

Board concluded, however, that it would be inappropriate to require retroactive application for some, but not all, of the provisions for disposal transactions. The Board expects that, based on the requirements of previous accounting pronouncements that address the accounting for disposal transactions, many disposal transactions that are in process when this Statement is initially applied will be completed within one year. Therefore, prospective application should not have a significant, continuing impact on the comparability and consistency of the financial statements.

B132. The Board observed, however, that in some cases assets that are classified as held for disposal when this Statement is initially applied may not meet the criteria in paragraph 30 by the end of the fiscal year in which the Statement is initially applied. The Board concluded that it would be inappropriate to allow the accounting for those assets to be "grandfathered" indefinitely. Doing so could impair the comparability and consistency of the financial statements and extend the provisions of Opinion 30 that require the accrual of future operating losses for several reporting periods. Therefore, for a long-lived asset (disposal group) classified as held for disposal when this Statement is initially applied, the asset (disposal group) must be reclassified as held and used in accordance with paragraph 38 if the criteria in paragraph 30 are not met by the end of the fiscal year in which this Statement is initially applied.

B133. This Statement requires reclassification of previously issued statements of financial position included for comparative purposes to reflect application of the reporting provisions in paragraph 46 for long-lived assets and disposal groups, including a temporarily controlled subsidiary, classified as held for sale under Statement 121 (that is, the prohibition of offsetting assets and liabilities). The Board believes that requiring reclassification will improve the comparability of those financial statements. Moreover, because that reporting affects only how the assets and liabilities of disposal groups previously classified as held for sale are displayed, the Board concluded that the information necessary to disaggregate and separately report those assets and liabilities would be available.

Appendix C: AMENDMENTS TO EXISTING PRONOUNCEMENTS

C1. This Statement supersedes FASB Statement No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of.*

C2. Accounting Research Bulletin No. 51, *Consolidated Financial Statements,* is amended as follows:

a. In the last sentence of paragraph 2, as amended by FASB Statement No. 94, *Consolidation of All Majority-Owned Subsidiaries,* the phrase *is likely to be temporary or if it* is deleted.

b. Paragraph 12 is deleted.

C3. In paragraphs 21 and the heading preceding it, 30(e), and 31 of APB Opinion No. 28, *Interim Financial Reporting,* all references to *segmentof abusiness* or *segments of a business* are replaced by *component of an entity* or *components of an entity*, respectively.

C4. APB Opinion No. 29, *Accounting for Nonmonetary Transactions,* is amended as follows:

a. The following footnote is added to the end of the first sentence of paragraph 21 and to the first sentence of paragraph 23 after the parenthetical phrase:

*An indicated impairment of value of a long-lived asset within the scope of Statement 144 shall be determined in accordance with paragraph 29 of that Statement.

C5. APB Opinion No. 30, *Reporting the Results of Operations—Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions*, is amended as follows:

a. In paragraph 3, *to specify the accounting and reporting for disposal of a segment of a business,(4)* is deleted.

b. Paragraphs 8 and 9 and footnote 2 are deleted.

c. Paragraph 11 is amended as follows:

(1) The following footnote is added to the first sentence immediately following *discontinued operations*:

*Paragraphs 41-44 of Statement 144 address the reporting of discontinued operations.

(2) In the second sentence, *segment of a business* is replaced by *component of an entity.*

d. Paragraphs 13-18 and the heading preceding those paragraphs are deleted.

e. Footnotes 5-7 are deleted.

f. Paragraph 23 is amended as follows:

(1) The references to *segment of a business* are replaced by *component of an entity.*

(2) The last sentence is replaced by the following:

Disposals of a component of an entity shall be accounted for and presented in the income statement in accordance with Statement 144 even though the circumstances of the disposal meet the criteria specified in paragraph 20.

g. Paragraph 25 is amended as follows:

(1) In the first sentence, *disposals of a segment of a business and* is deleted.

(2) In the second sentence, *of a loss on disposal of a business segment or* is deleted.

C6. AICPA Accounting Interpretation 1, "Illustration of the Application of APB Opinion No. 30," is amended as follows:

a. The first question and its interpretation are amended as follows:

(1) The interpretation and first discussion are deleted.

(2) The following interpretation is inserted before the second discussion:

> *Interpretation*—The criteria for extraordinary items classification should be considered. That is:
>
> Does the event or transaction meet both criteria of *unusual nature* and *infrequency of occurrence?*

b. The second question and its interpretation are superseded.

C7. [This paragraph has been deleted. See Status page.]

C8. In FASB Statement No. 43, *Accounting for Compensated Absences,* the last sentence of paragraph 2, as added by FASB Statement No. 112, *Employers' Accounting for Postemployment Benefits,* is deleted.

C9. In FASB Statement No. 66, *Accounting for Sales of Real Estate,* the following is added to the end of the second sentence of paragraph 65:

> unless the property has been classified as held for sale in accordance with paragraph 30 of FASB Statement No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets.*

C10. In FASB Statement No. 67, *Accounting for Costs and Initial Rental Operations of Real Estate Projects,* the first and second sentences of paragraph 24 are replaced by the following:

> The provisions in Statement 144 for long-lived assets to be disposed of by sale shall apply to a real estate project, or parts thereof, that is substantially completed and that is to be sold. The provisions in that Statement for long-lived assets to be held and used shall apply to real estate held for development, including property to be developed in the future as well as that currently under development, and to a real estate project, or parts thereof, that is substantially completed and that is to be held and used (for example, for rental). Determining whether the carrying amounts of real estate projects require recognition of an impairment loss shall be based on an evaluation of individual projects.

C11 FASB Statement No. 88, *Employers' Accounting for Settlements and Curtailments of Defined Benefit Pension Plans and for Termination Benefits,* is amended as follows:

a. In paragraph 6(a), *segment of a business* is replaced by *component of an entity.*

b. Paragraphs 8 and 16 and the heading preceding paragraph 16 are deleted.

c. Paragraph 57 is amended as follows:

(1) In the title of Example 3A, *segment* is replaced by *component.*

(2) In Example 3A, the reference to *segment of its business* is replaced by *component of the entity.*

(3) Footnote d to Example 3A is deleted.

C12. FASB Statement No. 106, *Employers' Accounting for Postretirement Benefits Other Than Pensions,* is amended as follows:

a. In paragraph 96(a), *segment of a business* is replaced by *component of an entity.*

b. Paragraph 103 and the heading preceding it are deleted.

C13. In paragraph 8(c) of FASB Statement No. 115, *Accounting for Certain Investments in Debt and Equity Securities,* the reference to *segment* is replaced by *component of an entity.*

C14. In the last sentence of paragraph 164 of FASB Statement No. 117, *Financial Statements of Not-for-Profit Organizations,* the reference to *a discontinued operating segment* is replaced by *reporting discontinued operations.*

C15. Paragraph 9 of FASB Statement No. 123, *Accounting for Stock-Based Compensation,* is amended as follows:

a. In the first sentence, *with the same meaning as in FASB Statement No. 121, Accounting for the Impairment of Long-Lived Assetsand for Long-Lived Assets to Be Disposed Of.* is replaced by *to refer to.*

b. In the second sentence, *Statement 121 says that the fair value of an asset is . . .* is deleted.

c. The reference to *[paragraph 7]* at the end of the quotation is deleted.

C16. Footnote 18 to paragraph 44 of FASB Statement No. 141, *Business Combinations,* is deleted.

C17. FASB Statement No. 142, *Goodwill and Other Intangible Assets,* is amended as follows:

a. Paragraph 7 is deleted.

b. Paragraph 15 is amended as follows:

(1) In the first sentence, *Statement 121* is replaced by *FASB Statement No. 144,Accounting for the Impairment or Disposal of Long-Lived Assets,* and *paragraphs 4—11*are replaced by *paragraphs 7—24.*

(2) In the second sentence, *Statement 121* is replaced by *Statement 144.*

c. The second (parenthetical) sentence of paragraph 17 is replaced by *(Paragraph 8 of Statement 144 includes examples of impairment indicators.).*

d. In paragraph 28(f), *Statement 121* is replaced by *Statement 144.*

e. In the second sentence of paragraph 29, *Statement 121* is replaced by *Statement 144.*

f. Footnote 22 to paragraph 39 is deleted.

g. Appendix A is amended as follows:

(1) In the last sentence of Example 1, *FASB Statement No. 121, Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of* is replaced by *FASB Statement No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets*.

(2) In Examples 2, 3, 5, and 9, all references to *Statement 121* are replaced by *Statement 144*.

C18. FASB Statement No. 143, *Accounting for Asset Retirement Obligations,* is amended as follows:

a. The fourth sentence of paragraph 2 is replaced by:

> This Statement does not apply to obligations that arise solely from a plan to sell or otherwise dispose of a long-lived asset covered by FASB Statement No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*.

b.

Paragraph 12 is amended as follows:

(1) In the first sentence, *Statement 121* is replaced by *Statement 144*.

(2) Footnote 11 is deleted.

C19. FASB Interpretation No. 18, *Accounting for Income Taxes in Interim Periods,* is amended as follows:

a.

Footnote 1 to paragraph 5 is replaced by the following:

> The terms used in this definition are described in APB Opinion No. 30, *Reporting the Results of Operations—Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions*, in FASB Statement No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets, and in FASB Statement No. 154, Accounting Changes and Error Corrections*. See paragraph 10 of Opinion 30 for *extraordinary items* and paragraph 26 for *unusual items* and *infrequently occurring items*. See paragraph 7(a) of Statement 154 for *cumulative effects of changes in accounting principles*. See paragraphs 41-44 of Statement 144 for *discontinued operations*.

b. Paragraph 19 is amended as follows:

(1) All references to *measurement date* are replaced by *date on which the criteria in paragraph 30 of Statement 144 are met.*

(2) In the first sentence, *both (a)* and *and (b) the gain (or loss) on disposal of discontinued operations (including any provision for operating loss subsequent to the measurement date)* are deleted.

(3) All references to *discontinuedsegment* are replaced by *discontinuedcomponent.*

(4) Footnote 20 is replaced by the following:

> The term *discontinued component* refers to the disposal of a component of an entity as described in paragraph 41 of Statement 144.

c. In paragraph 35, the references to *segment of a business* are replaced by *component of an entity.*

d. In paragraph 71, under Discontinued operations, *Division* is replaced by *Component* and *Income (loss) on disposal of Division X, including provision of $XXXX for operating losses during phase-out period (less applicable income taxes of $XXXX)* is deleted.

C20. Paragraph 3 of FASB Interpretation No. 27, *Accounting for a Loss on a Sublease*, is deleted.

C21. In paragraph 7 of FASB Interpretation No. 39, *Offsetting of Amounts Related to Certain Contracts,* the reference to *APB Opinion No. 30, Reporting the Results of Operations—Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions (reporting of discontinued operations)* is deleted.

C22.

AMENDMENTS MADE BY STATEMENT 121 CARRIED FORWARD IN THIS STATEMENT WITH MINOR CHANGES

In the first sentence of paragraph 19(h) of APB Opinion No. 18, *The Equity Method of Accounting for Investments in Common Stock,* the phrase *the same as a loss in value of other long-term assets* is deleted.

C23. The last question and its interpretation of AICPA Accounting Interpretation 1, "Illustration of the Application of APB Opinion No. 30," are superseded.

C24. FASB Statement No. 15, *Accounting by Debtors and Creditors for Troubled Debt Restructurings,* is amended as follows:

a. The following sentence is added after the first sentence of paragraph 28:

> A creditor that receives long-lived assets that will be sold from a debtor in full satisfaction of a receivable shall account for those assets at their fair value less cost to sell, as that

term is used in paragraph 34 of FASB Statement No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*.

b. The last sentence of paragraph 28 is replaced by the following:

The excess of (i) the recorded investment in the receivable [17] satisfied over (ii) the fair value of assets received (less cost to sell, if required above) is a loss to be recognized. For purposes of this paragraph, losses, to the extent they are not offset against allowances for uncollectible amounts or other valuation accounts, shall be included in measuring net income for the period.

c.

In the second sentence of paragraph 33, *at their fair values* is deleted and *less cost to sell* is inserted after *reduced by the fair value*.

C25. The following new heading and paragraph are added after paragraph 62 of FASB Statement No. 19, *Financial Accounting and Reporting by Oil and Gas Producing Companies:*

Impairment Test for Proved Properties and Capitalized Exploration and Development Cost

The provisions of FASB Statement No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets,* are applicable to the costs of an enterprise's wells and related equipment and facilities and the costs of the related proved properties. The impairment provisions relating to unproved properties referred to in paragraphs 12, 27-29, 31(b), 33, 40, 47(g), and 47(h) of this Statement remain applicable to unproved properties.

C26. The following sentence is added to the end of paragraph 19 of FASB Statement No. 34, *Capitalization of Interest Cost:*

The provisions of FASB Statement No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets,* apply in recognizing impairment of long-lived assets held for use.

C27. The first two sentences of paragraph 14 of FASB Statement No. 51, *Financial Reporting by Cable Television Companies,* are replaced by the following: **[Note: This amendment does not affect the amendment made by paragraph D5(2) of Statement 142 to refer to other intangible assets subject to the provisions of that Statement.]**

Capitalized plant and certain intangible assets are subject to the provisions of FASB Statement No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets.*

C28. Paragraph 48 of FASB Statement No. 60, *Accounting and Reporting by Insurance Enterprises,* is amended as follows:

a. In the first sentence, *andan allowance for any impairment in value* is deleted.

b. In the last sentence, *Changes in the allowance for any impairment in value relating to real estate investments* is replaced by *Reductions in the carrying amount of real estate investments resulting from the application of FASB Statement No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets,*.

C29. FASB Statement No. 61, *Accounting for Title Plant,* is amended as follows:

a. In the first and second sentences of paragraph 6, *value* is replaced by *carrying amount.*

b. The last sentence of paragraph 6 is replaced by the following:

Those events or changes in circumstances, in addition to the examples in paragraph 8 of FASB Statement No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets,* indicate that the carrying amount of the capitalized costs may not be recoverable. Accordingly, the provisions of Statement 144 apply.

C30. Footnote 5 to paragraph 21 of FASB Statement No. 66, *Accounting for Sales of Real Estate,* is replaced by the following:

Paragraph 24 of FASB Statement No. 67, *Accounting for Costs and Initial Rental Operations of Real Estate Projects,* as amended by FASB Statement No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets,* specifies the accounting for property that is substantially completed and that is to be sold.

C31. FASB Statement No. 67, *Accounting for Costs and Initial Rental Operations of Real Estate Projects,* is amended as follows:

a. In paragraph 3, *costs in excess of estimated**net realizable value*** is replaced by *reductions in the carrying amounts of real estate assetsprescribed by FASB Statement No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets.*

b. Paragraph 16 is deleted.

c. Paragraph 25 is replaced by the following:

Paragraph 8 of Statement 144 provides examples of events or changes in circumstances that indicate that the recoverability of the carrying amount of a long-lived asset should be assessed. Insufficient rental demand for a rental project currently under construction is an additional example that indicates that the recoverability of the real estate project should be assessed in accordance with the provisions of Statement 144.

d. In paragraph 28, the term *net realizable value* and its definition are deleted.

C32. FASB Statement No. 71, *Accounting for the Effects of Certain Types of Regulation,* is amended as follows:

a. The following sentence is added to the end of paragraph 9:

If at any time the incurred cost no longer meets the above criteria, that cost shall be charged to earnings.

b. Paragraph 10 is amended as follows:

(1) The second and third sentences are replaced by:

If a regulator excludes all or part of a cost from allowable costs, the carrying amount of any asset recognized pursuant to paragraph 9 of this Statement shall be reduced to the extent of the excluded cost.

(2) In the fourth sentence, *the asset has* is replaced by *other assets have* and *andFASB Statement No. 144,Accounting for the Impairment or Disposal of Long-Lived Assets,shall apply* is added to the end of that sentence after the footnote added by FASB Statement No. 90, *Regulated Enterprises—Accounting for Abandonments and Disallowances of Plant Costs.*

c. The following new paragraph is added after paragraph 10:

If a regulator allows recovery through rates of costs previously excluded from allowable costs, that action shall result in recognition of a new asset. The classification of that asset shall be consistent with the classification that would have resulted had those costs been initially included in allowable costs.

C33. The following phrase is added to the end of the third sentence of paragraph 6 of FASB Statement No. 101, *Regulated Enterprises—Accounting for the Discontinuation of Application of FASB Statement No. 71:*

, and FASB Statement No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets,* shall apply, except for the provisions for income statement reporting in paragraphs 25 and 26 of that Statement.

Appendix D: REFERENCES TO PRONOUNCEMENTS

D1. There are many references in the existing authoritative literature to impairment of assets. Appendix C indicates the amendments to pronouncements existing at the date of this Statement. The following table lists FASB and APB pronouncements that refer to impairment of long-lived assets and indicates which of those pronouncements will apply the applicable requirements of this Statement and which will continue to apply some other applicable existing requirement.

Existing Pronouncement	Title	Apply Requirement in This Statement	Apply Existing Requirement	Existing Requirement Paragraph Number

APB Opinion No. 18	The Equity Method of Accounting for Investments in Common Stock		X	19(h) (as amended by this Statement)
FASB Statement No. 7	Accounting and Reporting by Development Stage Enterprises	X		
FASB Statement No. 13	Accounting for Leases			
	• Capital leases of lessees	X		
	• Assets of lessors subject to operating leases	X		
	• Sales-type, direct financing, and leveraged leases of lessors		X	17
FASB Statement No. 19	Financial Accounting and Reporting by Oil and Gas Producing Companies			
	• Unproved properties		X	12, 27-29, 31, 33, 34, 40, 47(g), 47(h)
	• Proved properties, wells, and related equipment and facilities accounted for using the successful-efforts method of accounting	X		
FASB Statement No. 28	Accounting for Sales with Leasebacks		X	3(c)
FASB Statement No. 34	Capitalization of Interest Cost	X		

Existing Pronouncement	Title	Apply Requirement in This Statement	Apply Existing Requirement	Existing Requirement Paragraph Number
FASB Statement No. 50	Financial Reporting in the Record and Music Industry		X	11, 15
FASB Statement No. 51	Financial Reporting by Cable Television Companies			
	• Assets that are being depreciated (amortized)	X		
	• Other intangible assets		X	14
FASB Statement No. 60	Accounting and Reporting by Insurance Enterprises			
	• Real estate investments	X		
	• Deferred policy acquisition costs		X	32-37
FASB Statement No. 61	Accounting for Title Plant	X		
FASB Statement No. 63	Financial Reporting by Broadcasters		X	7

Existing Pronouncement	Title	Apply Requirement in This Statement	Apply Existing Requirement	Existing Requirement Paragraph Number
FASB Statement No. 65	Accounting for Certain Mortgage Banking Activities		X	7
FASB Statement No. 67	Accounting for Costs and Initial Rental Operations of Real Estate Projects	X		
FASB Statement No. 71	Accounting for the Effects of Certain Types of Regulation			
• Rate-regulated assets		X	9, 10 (as amended by this Statement)	
	• Other assets	X		

Existing Pronouncement	Title	Apply Requirement in This Statement	Apply Existing Requirement	Existing Requirement Paragraph Number
FASB Statement No. 86	Accounting for the Costs of Computer Software to Be Sold, Leased, or Otherwise Marketed		X	10
FASB Statement No. 90	Regulated Enterprises-Accounting for Abandonments and Disallowances of Plant Costs		X	7
FASB Statement No. 97	Accounting and Reporting by Insurance Enterprises for Certain Long-Duration Contracts and for Realized Gains and Losses from the Sale of Investments		X	25, 27
FASB Statement No. 101	Regulated Enterprises-Accounting for the Discontinuation of Application of FASB Statement No. 71	X		
FASB Statement No. 109	Accounting for Income Taxes		X	20-26

Existing Pronouncement	Title	Apply Requirement in This Statement	Apply Existing Requirement	Existing Requirement Paragraph Number
FASB Statement No. 114	Accounting by Creditors for Impairment of a Loan		X	8-16
FASB Statement No. 115	Accounting for Certain Investments in Debt and Equity Securities		X	16
FASB Statement No. 140	Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities		X	13, 63(g)
FASB Statement No. 142	*Goodwill and Other Intangible Assets*			
	• Goodwill and intangible assets not being amortized		X	17, 19-22
	• Intangible assets being amortized	X		
[Note: Prior to the adoption of FASB Statement No. 141 (revised 2007),*Business Combinations* (effective for business combinations with an acquisition date on or after the beginning of the first annual reporting period beginning on or after 12/15/08), the following portion of paragraph D1 should read as follows:]	FASB Statement No. 147			
Acquisitions of Certain Financial Institutions	• Depositor-and borrower-relationship intangible assets	X		
• Credit cardholder intangible assets	X	X		
[Note: After the adoption of Statement 141(R), the following portion of paragraph D1 should read as follows:]	FASB Statement No. 141(R)			
Business Combinations	• Depositor-and borrower-relationship intangible assets	X		
• Credit cardholder intangible assets		X		

Appendix E: EXCERPTS FROM CONCEPTS STATEMENT 7

E1-E3 [These paragraphs have been deleted. See Status page.]

[1] This Statement applies to a business enterprise and a not-for-profit organization, each of which is referred to herein as an *entity*.

[2] Accounting requirements for oil and gas properties that are accounted for using the full-cost method of accounting are prescribed by the Securities and Exchange Commission (Regulation S-X, Rule 4-10, "Financial Accounting and Reporting for Oil and Gas Producing Activities Pursuant to the Federal Securities Laws and the Energy Policy and Conservation Act of 1975").

[3] In this Statement, all references to a *long-lived asset* refer to a long-lived asset covered by this Statement.

[4] Examples of such liabilities include, but are not limited to, legal obligations that transfer with a long-lived asset, such as certain environmental obligations, and obligations that, for business reasons, a potential buyer would prefer to settle when assumed as part of a group, such as warranty obligations that relate to an acquired customer base.

[5] This Statement amends only pronouncements of the FASB, the APB, and the Committee on Accounting Procedure. Conforming changes to other literature, including consensuses of the FASB's Emerging Issue Task Force and pronouncements of the American Institute of Certified Public Accountants, may be made subsequently.

[6] The term *more likely than not* refers to a level of likelihood that is more than 50 percent.

[7] Paragraphs 19-22 of Statement 154 address the accounting for changes in estimates, including changes in the method of depreciation, amortization, and depletion. Paragraph 11 of Statement 142 addresses the determination of the useful life of an intangible asset.

[8] The term *reporting unit* is defined in Statement 142 as the same level as or one level below an operating segment (as that term is defined in paragraph 10 of FASB Statement No. 131, *Disclosures about Segments of an Enterprise and Related Information*). Statement 142 requires that goodwill be tested for impairment at the reporting unit level.

[9] Paragraph 29 of Statement 142 requires that goodwill be tested for impairment only after the carrying amounts of the other assets of the reporting unit, including the long-lived assets covered by this Statement, have been tested for impairment under other applicable accounting pronouncements.

[10] The primary asset of an asset group therefore cannot be land or an intangible asset not being amortized.

[11] FASB Statement No. 34, *Capitalization of Interest Cost,* states, "The capitalization period shall end when the asset is substantially complete and ready for its intended use" (paragraph 18).

[15] A *component of an entity* is defined in paragraph 41 of this Statement as comprising operations and cash flows that can be clearly distinguished, operationally and for financial reporting purposes, from the rest of the entity.

[16] Because the continued use of a long-lived asset demonstrates the presence of service potential, only in unusual situations would the fair value of a long-lived asset to be abandoned be zero while it is being used. When a long-lived asset ceases to be used, the carrying amount of the asset should equal its salvage value, if any. The salvage value of the asset should not be reduced to an amount less than zero.

[17] The provisions of this paragraph apply to nonmonetary exchanges that are not recorded at fair value under the provisions of APB Opinion No. 29, *Accounting for Nonmonetary Transactions*, as amended.

[18] The term *probable* is used consistent with the meaning associated with it in paragraph 3(a) of FASB Statement No. 5, *Accounting forContingencies,* and refers to a future sale that is "likely to occur."

[19] A *firm purchase commitment* is an agreement with an unrelated party, binding on both parties and usually legally enforceable, that (a) specifies all significant terms, including the price and timing of the transaction, and (b) includes a disincentive for nonperformance that is sufficiently large to make performance probable.

[20] Refer to Statement 165.

[21] Because it is difficult to separate the benefit of hindsight when assessing conditions that existed at a prior date, it is important that judgments about those conditions, the need to test an asset for recoverability, and the application of a recoverability test be made and documented together with supporting evidence on a timely basis.

[22] Expected future operating losses that marketplace participants would not similarly consider in their estimates of the fair value less cost to sell of a long-lived asset (disposal group) classified as held for sale shall not be indirectly recognized as part of an expected loss on the sale by reducing the carrying amount of the asset (disposal group) to an amount less than its current fair value less cost to sell.

[23] Paragraph 39 of Statement 142 provides guidance for allocating goodwill to a lower-level asset group to be disposed of that is part of a reporting unit and that constitutes a business. Goodwill is not included in a lower-level asset group to be disposed of that is part of a reporting unit if it does not constitute a business.

[24] This caption shall be modified appropriately when an entity reports an extraordinary item. If applicable, the presentation of per-share data will need similar modification.

[25] Paragraph 3 of FASB Statement No. 88, *Employers' Accounting for Settlements and Curtailments of Defined Benefit Pension Plans and for Termination Benefits,* defines *settlement* as "a transaction that (a) is an irrevocable action, (b) relieves the employer (or the plan) of primary responsibility for a pension benefit obligation, and (c) eliminates significant risks related to the obligation and the assets used to effect the settlement." A settlement is directly related to the disposal transaction if there is a demonstrated direct cause-and-effect relationship and the settlement occurs no later than one year following the disposal transaction, unless it is delayed by events or circumstances beyond an entity's control (refer to paragraph 31).

[26] Paragraph 43 requires that when a component of an entity is reported as a discontinued operation, the income statements of prior periods be reclassified to report the results of operations of the component separately. This transition provision does not affect that requirement.

[27] The alternatives of whether to sell or use an asset are not necessarily independent of each other. In many situations, after estimating the possible future cash flows relating to those potential courses of action, an entity might select the course of action that results in a significantly higher estimate of possible future cash flows. In that situation, the entity generally would use the estimates of possible future cash flows relating only to that course of action in computing future cash flows.

[29a] In this example, a market risk premium is included in the expected cash flows; that is, the cash flows are certainty equivalent cash flows.

[30] If at the date of the sale-leaseback the fair value of the property is less than its undepreciated cost, a loss would be recognized immediately up to the amount of the difference between undepreciated cost and fair value in accordance with paragraph 3(c) of FASB Statement No. 28, *Accounting for Sales with Leasebacks.*

[31] Paragraph 15 of Opinion 30 stated that "in the usual circumstance, it would be expected that the plan of disposal would be carried out within a period of one year from the measurement date. . . ."

[32] The prohibition on retroactive application does not extend to the provisions of this Statement for reporting discontinued operations after this Statement is initially applied.

END OF DOCUMENT -

Exhibit S55

From: Lemuel Srolovic [mailto:Lemuel.Srolovic@ag.ny.gov]
Sent: Thursday, November 19, 2015 5:58 PM
To: Hirshman, Michele <mhirshman@paulweiss.com>; Wells Jr., Theodore V <twells@paulweiss.com>; Patrick J. Conlon <patrick.j.conlon@exxonmobil.com>
Cc: Steven Glassman <Steven.Glassman@ag.ny.gov>; Berse, Farrah R <fberse@paulweiss.com>; Mandy DeRoche <Mandy.DeRoche@ag.ny.gov>; Monica Wagner <Monica.Wagner@ag.ny.gov>; Kevin Olson <Kevin.Olson@ag.ny.gov>
Subject: RE: Exxon Subpoena

Michele, Ted and Pat –

As discussed yesterday, this confirms that the Attorney General's office has agreed to extend the return date of the subpoena on Exxon to January 11, 2016 subject to further extensions by agreement. This will also confirm our understanding that, by producing documents in accordance with our discussions prior to the return date as extended, Exxon is not waiving any right to seek to quash or otherwise object to the subpoena. Likewise, the Attorney General's office is not waiving any right to compel compliance with the subpoena.

We would also like to confirm the steps that Exxon has taken to preserve documents and information potentially responsive to the subpoena. Michele indicated at our first meeting that Exxon had instituted a litigation hold but we are not clear whether that was imposed on all custodians of potentially responsive documents and information or a smaller group of custodians. Please let us know the full extent of the hold that has been imposed.

Regards,

Lem

From: Hirshman, Michele [mailto:mhirshman@paulweiss.com]
Sent: Tuesday, November 17, 2015 10:43 AM
To: Monica Wagner; Lemuel Srolovic; Wells Jr., Theodore V

Cc: Steven Glassman; Patrick J. Conlon; Berse, Farrah R
Subject: Re: Exxon Subpoena

We can make it work. Let us know if we need a conf call number and we can circulate.

Michele Hirshman
Paul, Weiss, Rifkind, Wharton & Garrison LLP
1285 Avenue of the Americas | New York, NY 10019-6064
(212) 373-3747 (Direct Phone) | (212) 492-0747 (Direct Fax)
mailto:MHirshman@paulweiss.com | http://www.paulweiss.com

From: Hirshman, Michele
Sent: Tuesday, November 17, 2015 10:02 AM
To: Monica Wagner; Lemuel Srolovic; Wells Jr., Theodore V
Cc: Steven Glassman; Patrick J. Conlon; Berse, Farrah R
Subject: Re: Exxon Subpoena

We'll connect on our side and get back to you.

Michele Hirshman
Paul, Weiss, Rifkind, Wharton & Garrison LLP
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(212) 373-3747 (Direct Phone) | (212) 492-0747 (Direct Fax)
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From: Monica Wagner
Sent: Tuesday, November 17, 2015 9:55 AM
To: Hirshman, Michele; Lemuel Srolovic; Wells Jr., Theodore V
Cc: Steven Glassman; Patrick J. Conlon; Berse, Farrah R
Subject: RE: Exxon Subpoena

Thursday doesn't work well for us. Would Wednesday, November 18, at 4:00 work for your team?

From: Hirshman, Michele [mailto:mhirshman@paulweiss.com]
Sent: Monday, November 16, 2015 5:33 PM
To: Lemuel Srolovic; Wells Jr., Theodore V
Cc: Steven Glassman; Monica Wagner; Patrick J. Conlon; Berse, Farrah R
Subject: Re: Exxon Subpoena

Lem:

Following up on your proposal that we speak the middle of this week, would you (and your team) be available on November 19 at 3:30 pm? We can circulate a call-in number.

Thanks.

Michele

Michele Hirshman
Paul, Weiss, Rifkind, Wharton & Garrison LLP
1285 Avenue of the Americas | New York, NY 10019-6064

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From: Lemuel Srolovic
Sent: Friday, November 13, 2015 6:09 PM
To: Wells Jr., Theodore V; Hirshman, Michele
Cc: Steven Glassman; Monica Wagner
Subject: Exxon Subpoena

Ted and Michele --

Thank you for coming in yesterday. You have proposed that Exxon produce a relatively small subset of documents responsive to our subpoena on January 11 and that we meet to discuss further production on December 10. We would be willing to extend the return date of the subpoena if we can agree that Exxon will do (1) a limited production on or before December 3 as described below and (2) a second production on or before January 11 as described below. Both of those productions should be made on a rolling basis. Those productions are consistent with your suggestion, with which we agree, that we prioritize our requests, focusing on key documents and custodians. We also agree that a follow-on meeting on Thursday, December 10, 2015 to discuss further production should be our next step.

Documents to be produced on or before December 3, 2015:
- Internal organization chart(s).
- Documents responsive to Request No. 5, including the annual briefings to the board of directors to which Exxon's 2014 Carbon Disclosure Project Response refers.
- Reports regarding climate change generated for management during the transition period between CEOs in or about the years 2005 and 2006.

Documents to be produced on or before January 11, 2016:
- Non-email documents and communications responsive to the subpoena that are in the custody of the two heads of the "climate change" group that you identified yesterday and any other employees in that group.
- Responsive non-email documents and communications in the custody of the employees in the "corporate-wide global climate change and GHG issue management team with national and regional subteams" as identified on page 34 of the company's 2014 Corporate Citizenship Report.
- Reports generated for management that are responsive to Request No. 3 for Time Period 1.
- Non e-mail documents and communications, including drafts, concerning the Energy Trends, Greenhouse Gas Emissions, and Alternative Energy and Energy and Carbon – Managing the Risks reports that are in the custody of the primary authors of those reports, with the relevant corresponding documents responsive to Request No. 10.
- Documents responsive to Request No. 9, with the relevant corresponding documents responsive to Request No. 10.

Please let us know whether you agree by the middle of next week.

Regards,

Lem

Lemuel M. Srolovic
Bureau Chief
Environmental Protection Bureau
New York State Attorney General
212-416-8448 (o)
917-621-6174 (m)
lemuel.srolovic@ag.ny.gov

Exhibit S56

Energy and Carbon -- Managing the Risks

ExxonMobil[1] engages in constructive and informed dialogue with a wide variety of stakeholders on a number of energy-related topics. This report seeks to address important questions raised recently by several stakeholder organizations on the topics of global energy demand and supply, climate change policy, and carbon asset risk.

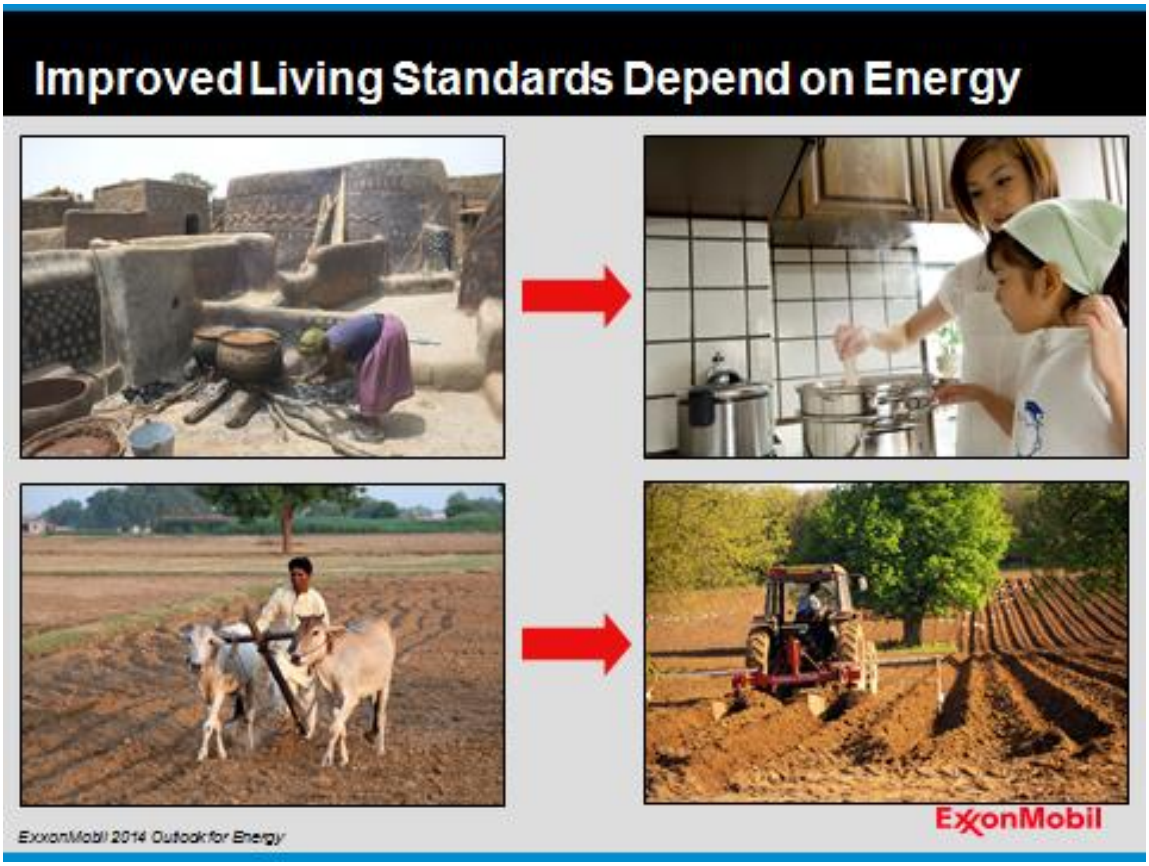
As detailed below, ExxonMobil makes long-term investment decisions based in part on our rigorous, comprehensive annual analysis of the global outlook for energy, an analysis that has repeatedly proven to be consistent with the International Energy Agency *World Energy Outlook*, the U.S. Energy Information Administration *Annual Energy Outlook*, and other reputable, independent sources. For several years, our *Outlook for Energy* has explicitly accounted for the prospect of policies regulating greenhouse gas emissions (GHG). This factor, among many others, has informed investments decisions that have led ExxonMobil to become the leading producer of cleaner-burning natural gas in the United States, for example.

Based on this analysis, we are confident that none of our hydrocarbon reserves are now or will become "stranded." We believe producing these assets is essential to meeting growing energy demand worldwide, and in preventing consumers – especially those in the least developed and most vulnerable economies – from themselves becoming stranded in the global pursuit of higher living standards and greater economic opportunity.

[1] As used in this document, "ExxonMobil" means Exxon Mobil Corporation and/or one or more of its affiliated companies. Statements of future events or conditions in this report are forward-looking statements. Actual future results, including economic conditions and growth rates; energy demand and supply sources; efficiency gains; and capital expenditures, could differ materially due to factors including technological developments; changes in law or regulation; the development of new supply sources; demographic changes; and other factors discussed herein and under the heading "Factors Affecting Future Results" in the Investors section of our website at: www.exxonmobil.com. The information provided includes ExxonMobil's internal estimates and forecasts based upon internal data and analyses, as well as publicly available information from external sources including the International Energy Agency. Citations in this document are used for purposes of illustration and reference only and any citation to outside sources does not necessarily mean that ExxonMobil endorses all views or opinions expressed in or by those sources.

1. Strong Correlation between Economic Growth and Energy Use

The universal importance of accessible and affordable energy for modern life is undeniable. Energy powers economies and enables progress throughout the world. It provides heat for homes and businesses to protect against the elements; power for hospitals and clinics to run advanced, life-saving equipment; fuel for cooking and transportation; and light for schools and streets. Energy is the great enabler for modern living and it is difficult to imagine life without it. Given the importance of energy, it is little wonder that governments seek to safeguard its accessibility and affordability for their growing populations. It is also understandable that any restrictions on energy production that decrease its accessibility, reliability or affordability are of real concern to consumers who depend upon it.



2. World Energy Needs Keep Growing

Each year, ExxonMobil analyzes trends in energy and publishes our forecast of global energy requirements in our *Outlook for Energy*. The Outlook provides the foundation for our business and investment planning, and is compiled from the breadth of the company's worldwide experience in and understanding of the energy industry. It is based on rigorous analyses of supply and demand, technological development, economics, and government policies and regulations, and it is consistent with many independent, reputable third-party analyses.

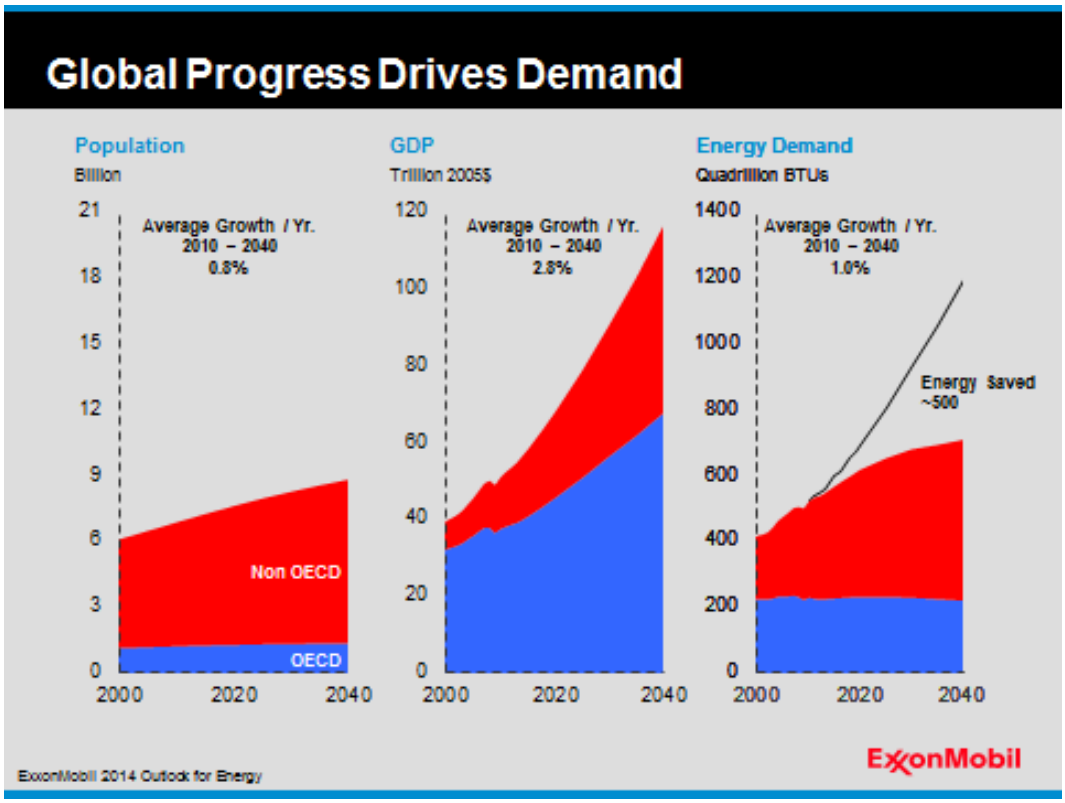
ExxonMobil's current *Outlook for Energy* extends through the year 2040, and contains several conclusions that are relevant to questions raised by stakeholder organizations. Understanding this factual and analytical foundation is crucial to understanding ExxonMobil's investment decisions and approach to the prospect of further constraints on carbon.

World population increases. Ultimately, the focus of ExxonMobil's *Outlook for Energy* – indeed, the focus of our business – is upon people, their economic aspirations and their energy requirements. Accordingly, our analysis begins with demographics. Like many independent analyses, ExxonMobil anticipates the world's population will add two billion people to its current total of seven billion by the end of the Outlook period. The majority of this growth will occur in developing countries.

World GDP grows. The global economy will grow as the world's population increases, and it is our belief that GDP gains will outpace population gains over the Outlook period, resulting in higher living standards. Assuming sufficient, reliable and affordable energy is available, we see world GDP growing at a rate that exceeds population growth through the Outlook period, almost tripling in size from what it was globally in 2000.[2] It is

[2] We see global GDP approaching $120 trillion, as compared to $40 trillion of global GDP in 2000 (all in constant 2005 USA$'s). GDP per capita will also grow by about 80 percent between 2010 and 2040, despite the increase in population.

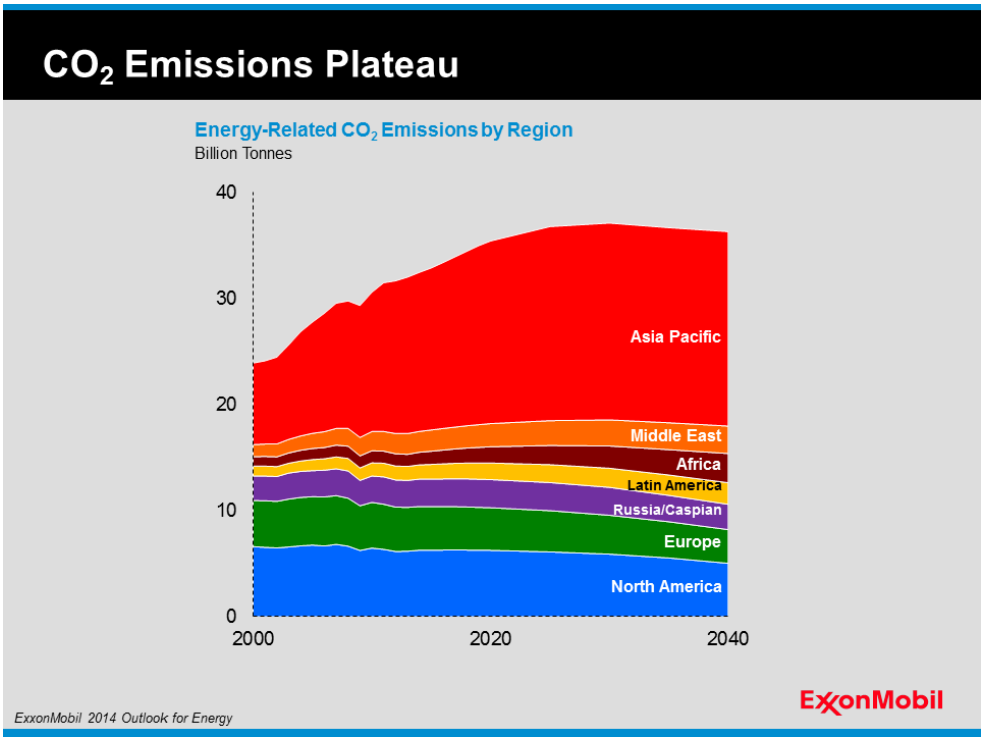
largely the poorest and least developed of the world's countries that benefit most from this anticipated growth. However, this level of GDP growth requires more accessible, reliable and affordable energy to fuel growth, and it is vulnerable populations who would suffer most should that growth be artificially constrained.



Energy demand grows with population and GDP. As the world becomes more populous and living standards improve over the Outlook period, energy demand will increase as well. We see the world requiring 35 percent more energy in 2040 than it did in 2010. The pace of this energy demand increase is higher than the population growth rate, but less than global GDP growth rate. Greater energy efficiency is a key reason why energy demand growth trails economic growth. We see society implementing policy changes that will promote energy efficiency, which will serve to limit energy demand growth. We also see many governments adopting policies that promote the switch to less carbon-intensive fuels, such as natural gas. As noted in the chart above, energy demand in 2040 could be almost double what it would be without the anticipated efficiency gains.

ExxonMobil believes that efficiency is one of the most effective tools available to manage greenhouse gas emissions, and accordingly our company is making significant contributions to energy efficiency, both in our own operations and in our products.

Energy-related CO2 emissions stabilize and start decreasing. As the world's population grows and living standards increase, we believe GHG emissions will plateau and start decreasing during the Outlook period. In the OECD countries, energy-based GHG emissions have already peaked and are declining. Our views in this regard are similar to other leading, independent forecasts.[3]

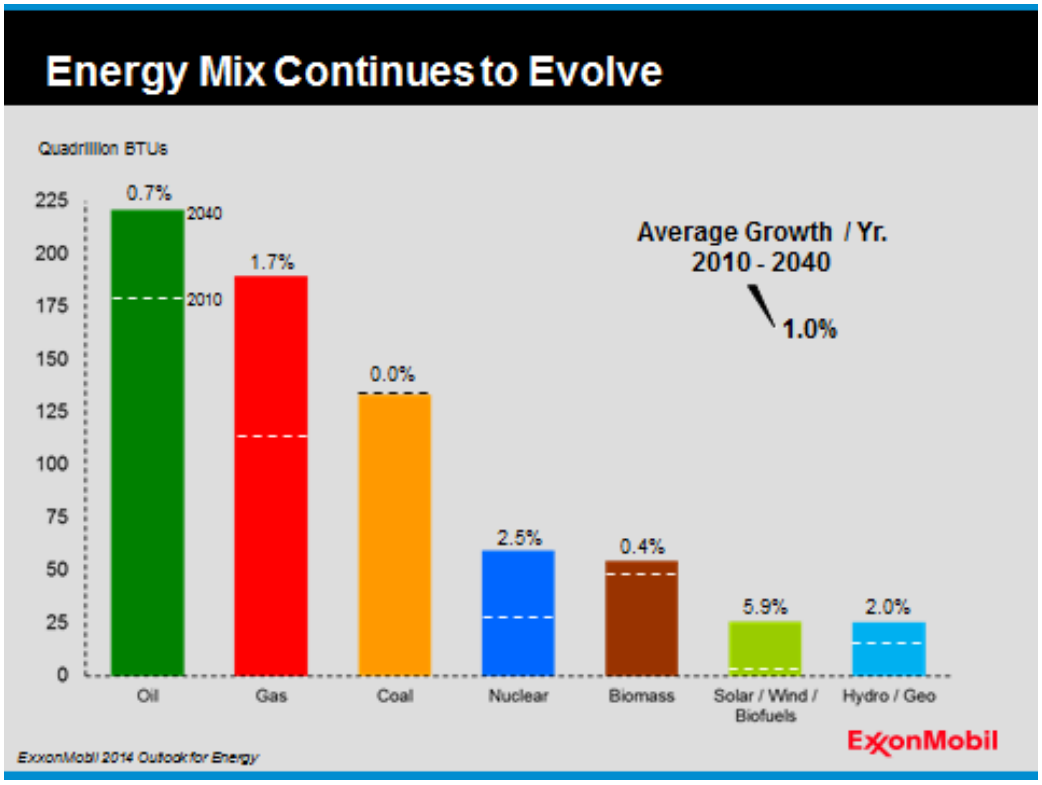


As part of our Outlook process, we do not project overall atmospheric GHG concentration, nor do we model global average temperature impacts.[4] However, we do project an energy-related CO2 emissions profile through 2040, and this can be compared

[3] For example, the IEA predicts that energy-related emissions will grow by 20%, on trend but slightly higher than our Outlook. See www.worldenergyOutlook.org.
[4] These would require data inputs that are well beyond our company's ability to reasonably measure or verify.

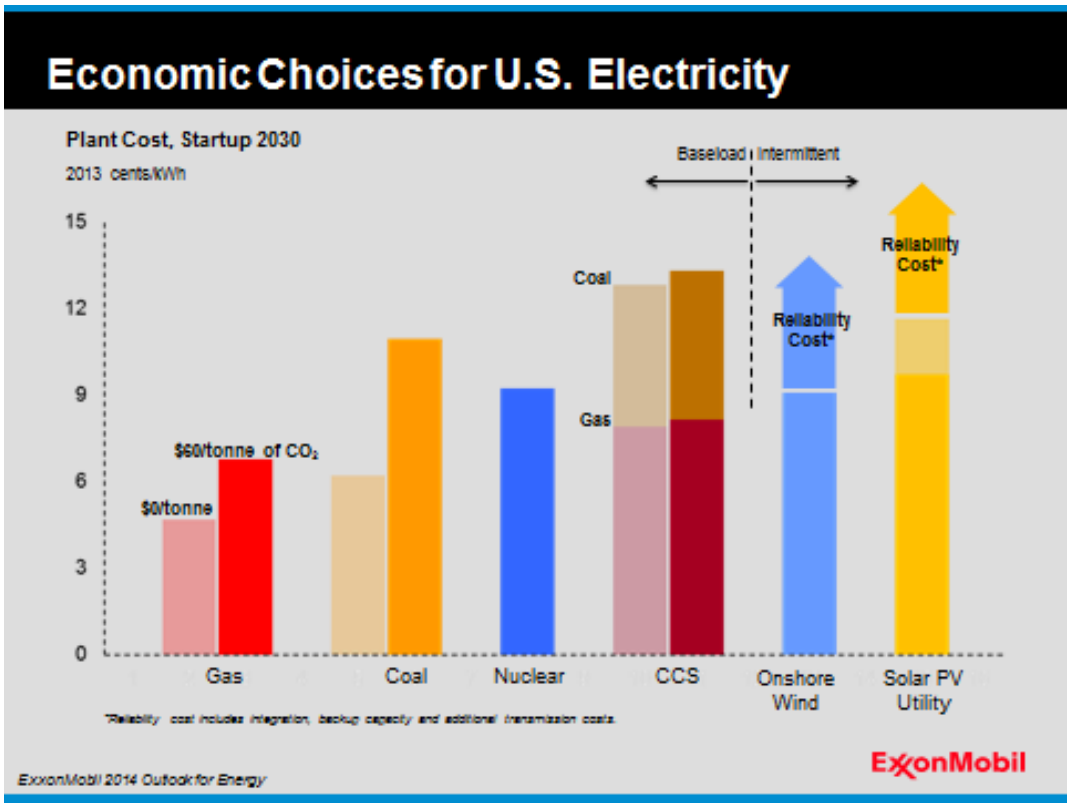
to the energy-related CO2 emissions profiles from various scenarios outlined by the Intergovernmental Panel on Climate Change (IPCC). When we do this, our Outlook emissions profile through 2040 would closely approximate the IPCC's intermediate RCP 4.5 emissions profile pathway in shape, but is slightly under it in magnitude.[5]

All economic energy sources are needed to meet growing global demand. In analyzing the evolution of the world's energy mix, we anticipate renewables growing at the fastest pace among all sources through the Outlook period. However, because they make a relatively small contribution compared to other energy sources, renewables will continue to comprise about 5 percent of the total energy mix by 2040. Factors limiting further penetration of renewables include scalability, geographic dispersion, intermittency (in the case of solar and wind), and cost relative to other sources.



[5] The IPCC RCP 4.5 scenario extends 60 years beyond our Outlook period to the year 2100, and incorporates a full carbon cycle analysis. The relevant time horizons differ and we do not forecast potential climate impacts as part of our Outlook, and therefore cannot attest to their accuracy.

The cost limitations of renewables are likely to persist even when higher costs of carbon are considered.



3. Climate Change Risk

ExxonMobil takes the risk of climate change seriously, and continues to take meaningful steps to help address the risk and to ensure our facilities, operations and investments are managed with this risk in mind.

Many governments are also taking these risks seriously, and are considering steps they can take to address them. These steps may vary in timing and approach, but regardless, it is our belief they will be most effective if they are informed by global energy demand and supply realities, and balance the economic aspirations of consumers.

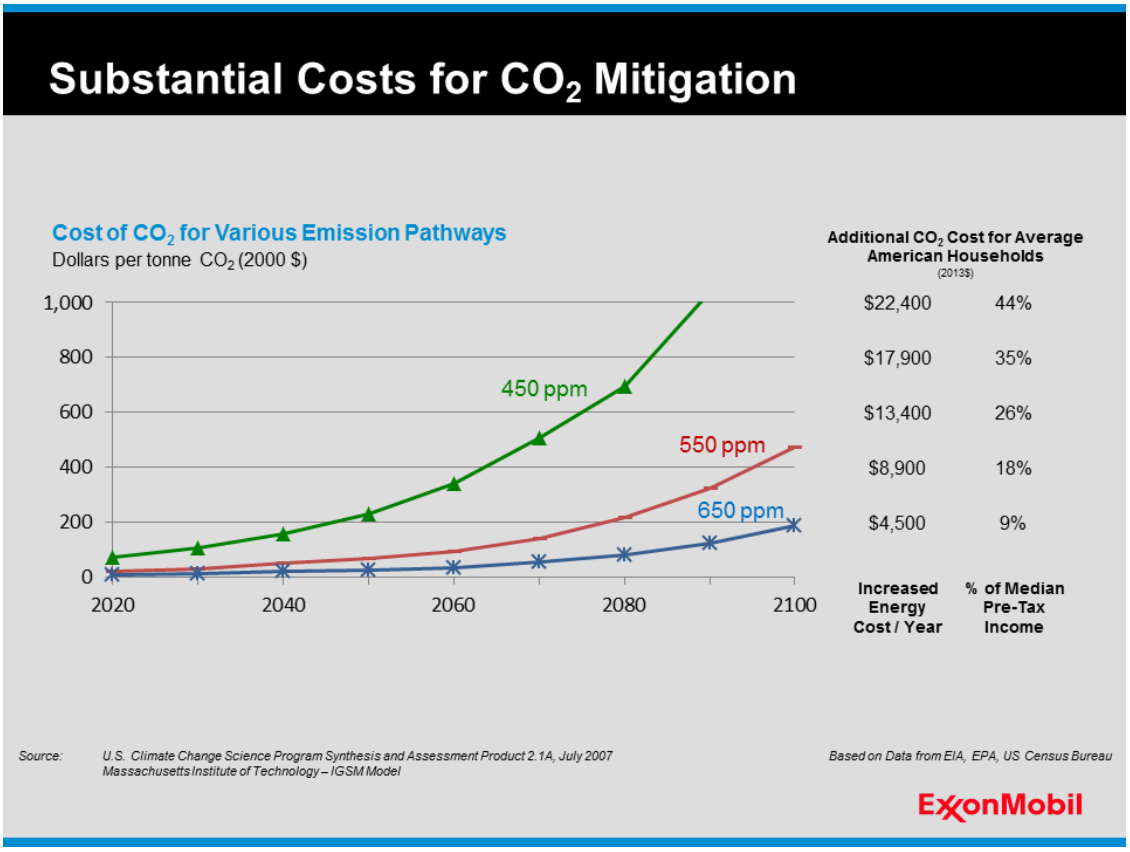
4. Carbon Budget and Carbon Asset Risk Implications

One focus area of stakeholder organizations relates to what they consider the potential for a so-called carbon budget. Some are advocating for this mandated carbon budget in order to achieve global carbon-based emission reductions in the range of 80 percent through the year 2040, with the intent of stabilizing world temperature increases not to exceed 2 degrees Celsius by 2100 (i.e., the "low carbon scenario"). A concern expressed by some of our stakeholders is whether such a "low carbon scenario" could impact ExxonMobil's reserves and operations – i.e., whether this would result in unburnable proved reserves of oil and natural gas.

The "low carbon scenario" would require CO2 prices significantly above current price levels. In 2007, the U.S. Climate Change Science Program published a study that examined, among other things, the global CO2 cost needed to drive investments and transform the global energy system, in order to achieve various atmospheric CO2 stabilization pathways. The three pathways shown in the chart below are from the MIT IGSM model used in the study, and are representative of scenarios with assumed climate policies that stabilize GHGs in the atmosphere at various levels, from 650 ppm CO2 down to 450 ppm CO2, a level approximating the level asserted to have a reasonable chance at meeting the "low carbon scenario." Meeting the 450 ppm pathway requires large, immediate reductions in emissions with overall net emissions becoming negative in the second half of the century. Non-fossil energy sources, like nuclear and renewables, along with carbon capture and sequestration, are deployed in order to transform the energy system. Costs for CO2 required to drive this transformation are modeled. In general, CO2 costs rise with more stringent stabilization targets and with time. Stabilization at 450 ppm would require CO2 prices significantly above current price levels, rising to over $200 per ton by 2050. By comparison, current EU Emissions Trading System prices are approximately $8 to $10 per ton of CO2.

In the right section of the chart below, different levels of added CO2 are converted to estimated added annual energy costs for an average American family earning the median

income. For example, by 2030 for the 450ppm CO2 stabilization pathway, the average American household would face an added CO2 cost of almost $2,350 per year for energy, amounting to about 5 percent of total before-tax median income. These costs would need to escalate steeply over time, and be more than double the 2030 level by mid-century. Further, in order to stabilize atmospheric GHG concentrations, these CO2 costs would have to be applied across both developed and developing countries.

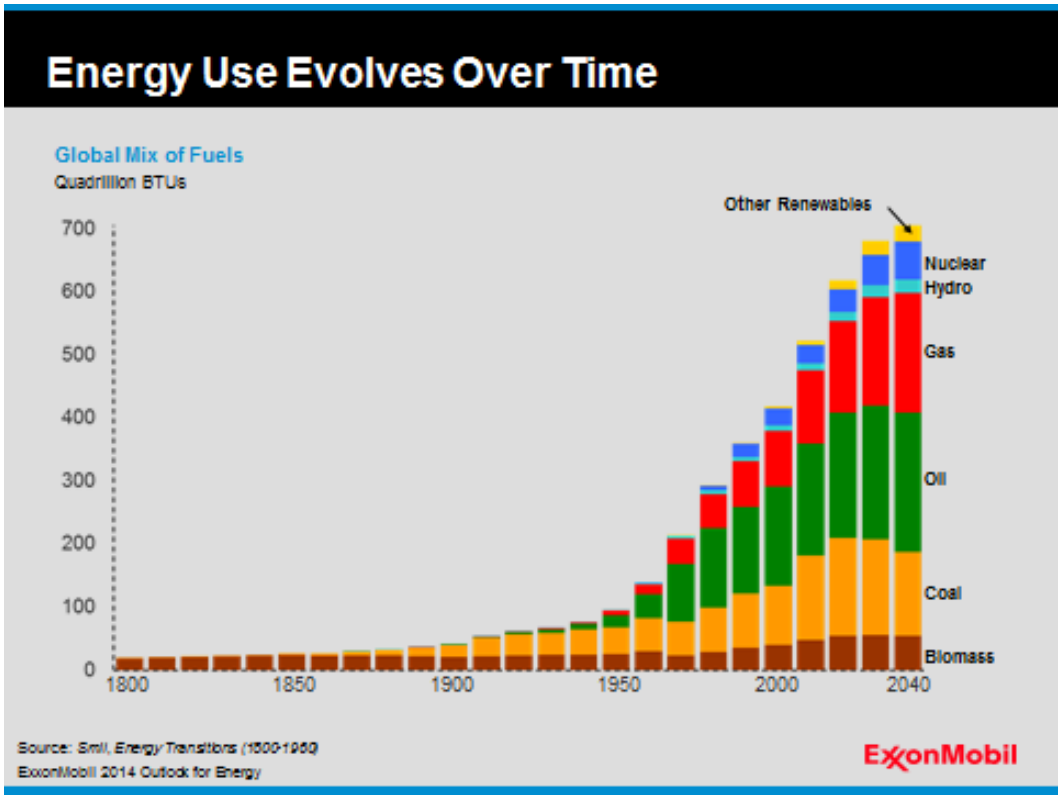


In 2008, the International Energy Agency estimated that reducing greenhouse gas emissions to just 50 percent below 2005 levels by 2050 would require $45 trillion in added energy supply and infrastructure investments.[6] In this scenario, the IEA estimated that *each year* between 2005 and 2050 the world would need to construct 24 to 32 one-thousand-megawatt nuclear plants, build 30 to 35 coal plants with carbon capture and

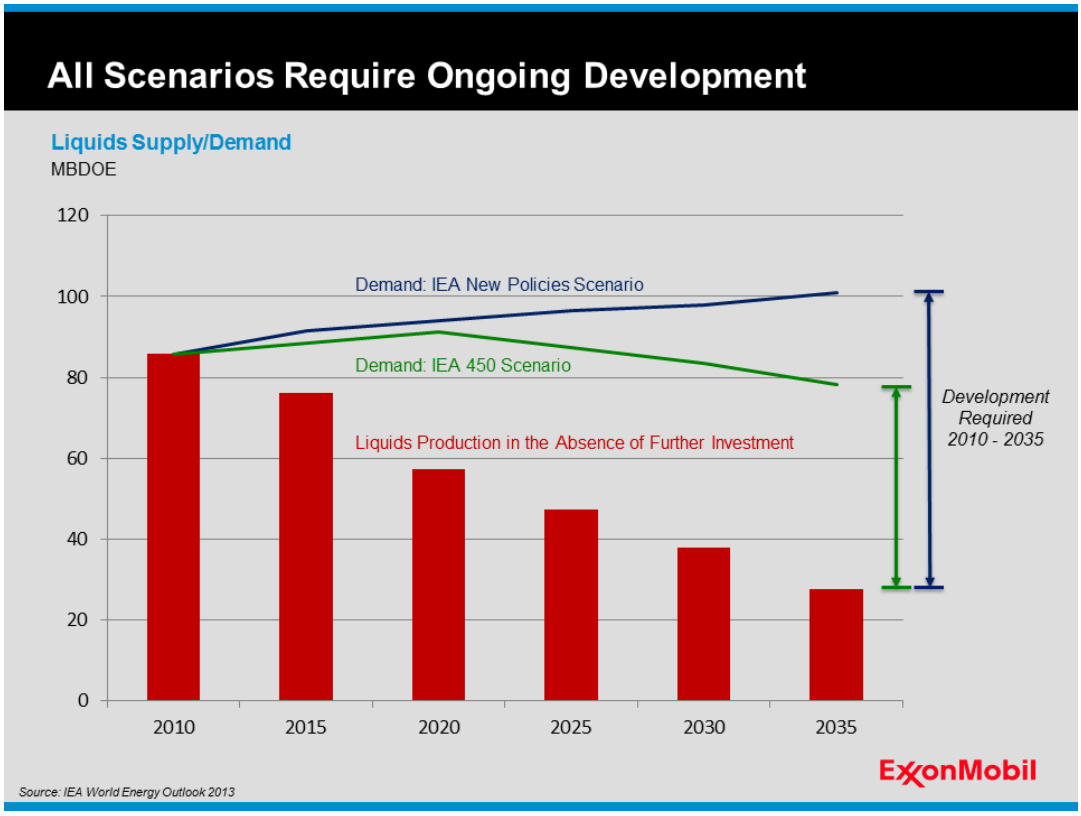
[6] See *IEA Energy Technology Perspectives 2008, Scenarios & Strategies to 2050*.

sequestration capabilities, and install 3,700 to 17,800 wind turbines of four megawatt capacity.

Transforming the energy system will take time. Energy use and mix evolve slowly due to the vast size of the global energy system. As shown in the chart below, biomass like wood was the primary fuel for much of humanity's existence. Coal supplanted biomass as the primary energy source around 1900; it was not until the middle of the 20th century before oil overtook coal as the primary source of energy. We believe the transition to lower carbon energy sources will also take time, despite rapid growth rates for such sources. Traditional energy sources have had many decades to scale up to meet the enormous energy needs of the world. As discussed above, renewable sources, such as solar and wind, despite very rapid growth rates, cannot scale up quickly enough to meet global demand growth while at the same time displacing more traditional sources of energy.



A "low carbon scenario" will impact economic development. Another consideration related to the "low carbon scenario" is that capping of carbon-based fuels would likely harm those least economically developed populations who are most in need of affordable, reliable and accessible energy.[7] Artificially restricting supplies can also increase costs, and increasing costs would not only impact the affordability and accessibility of energy, especially to those least able to pay, it could impact the rate of economic development and living standards for all. Increasing energy costs leads to a scarcity of affordable, reliable and accessible energy and can additionally lead to social instability. While the risk of regulation where GHG emissions are capped to the extent contemplated in the "low carbon scenario" during the Outlook period is always possible, it is difficult to envision governments choosing this path in light of the negative implications for economic growth and prosperity that such a course poses, especially when other avenues may be available, as discussed further below.



[7] According to the International Energy Agency, 2.6 billion people still rely on biomass for cooking and over 15% of the world's population lacks access to electricity (http://www.iea.org/topics/energypoverty/).

Even in a "low carbon scenario," hydrocarbon energy sources are still needed. The IEA in its World Energy Outlook 2013 examined production of liquids from currently-producing fields, in the absence of additional investment, versus liquids demand, for both their lead "*New Policies Scenario*" and for a "*450 Scenario.*" As shown in the chart above, in both scenarios, there remains significant liquids demand through 2035, and there is a need for ongoing development and investment. Without ongoing investment, liquids demand will not be met, leaving the world short of oil.

ExxonMobil believes that although there is always the possibility that government action may impact the company, the scenario where governments restrict hydrocarbon production in a way to reduce GHG emissions 80 percent during the Outlook period is highly unlikely. The Outlook demonstrates that the world will require all the carbon-based energy that ExxonMobil plans to produce during the Outlook period.[8] Also, as discussed above, we do not anticipate society being able to supplant traditional carbon-based forms of energy with other energy forms, such as renewables, to the extent needed to meet this carbon budget during the Outlook period.

5. Managing the Risk

ExxonMobil's actions. ExxonMobil addresses the risk of climate change in several concrete and meaningful ways. We do so by improving energy efficiency and reducing emissions at our operations, and by enabling consumers to use energy more efficiently through the advanced products we manufacture. In addition, we conduct and support extensive research and development in new technologies that promote efficiency and reduce emissions.

[8] ExxonMobil's proved reserves at year-end 2013 are estimated to be produced on average within sixteen years, well within the Outlook period. See Exxon Mobil Corporation 2013 Financial & Operating Review, p. 22. It is important to note that this sixteen year average reserves-to-production ratio does not mean that the company will run out of hydrocarbons in sixteen years, since it continues to add proved reserves from its resource base and has successfully replaced more than 100% of production for many years. See Item 2 Financial Section of ExxonMobil's 2013 Form 10-K for ExxonMobil's proved reserves, which are determined in accordance with current SEC definitions.

In our operations, we apply a constant focus on efficiency that enables us to produce energy to meet society's needs using fewer resources and at a lower cost.

For example, ExxonMobil is a leader in cogeneration at our facilities, with equity ownership in more than 100 cogeneration units at more than 30 sites with over 5200 megawatts of capacity. This capacity, which is equivalent to the electricity needs of approximately 2.5 million U.S. households, reduces the burden on outside power and grid suppliers and can reduce the resulting emissions by powering ExxonMobil's operations in a more efficient and effective manner.

We also constantly strive to reduce the emission intensity of our operations. Cumulative savings, for example, between 2009 and 2012 amounted to 8.4 million metric tons of greenhouse gases.

Many of ExxonMobil's products also enable consumers to be more energy efficient and therefore reduce greenhouse gas emissions. Advancements in tire liner technology developed by ExxonMobil allow drivers to save fuel. Our synthetic lubricants also improve vehicle engine efficiency. And lighter weight plastics developed by ExxonMobil reduce vehicle weights, further contributing to better fuel efficiency. [9]

ExxonMobil is also the largest producer of natural gas in the United States, a fuel with a variety of consumer uses, including heating, cooking and electricity generation. Natural gas emits up to 60 percent less CO2 than coal when used as the source for power generation.

Research is another area in which ExxonMobil is contributing to energy efficiency and reduced emissions. We are on the forefront of technologies to lower greenhouse gas emissions. For example, ExxonMobil operates one of the world's largest carbon capture

[9] Using ExxonMobil fuel-saving technologies in one-third of U.S. vehicles, for example, could translate into a saving of about 5 billion gallons of gasoline, with associated greenhouse gas emissions savings equivalent to taking about 8 million cars off the road.

and sequestration (CCS) operations at our LaBarge plant in Wyoming. It is a co-venturer in another project, the Gorgon natural gas development in Australia, which when operational will have the largest saline reservoir CO2 injection facility in the world. The company is leveraging its experience with CCS in developing new methods for capturing CO2, which can reduce costs and increase the application of carbon capture for society. ExxonMobil also is actively engaged, both internally and in partnership with renowned universities and institutions, in research on new break-through technologies for energy.

The company also engineers its facilities and operations robustly with extreme weather considerations in mind. Fortification to existing facilities and operations are addressed, where warranted due to climate or weather events, as part of ExxonMobil's Operations Integrity Management System.

ExxonMobil routinely conducts life cycle assessments (LCAs), which are useful to understand whether a technology can result in environmental improvements across a broad range of factors. For example, in 2011 we conducted a LCA in concert with Massachusetts Institute of Technology and Synthetic Genomics Inc. to assess the impact of algal biofuel production on GHG emissions, land use, and water use. The study demonstrated the potential that algae fuels can be produced with freshwater consumption equivalent to petroleum refining, and enable lower GHG emissions. A more recent LCA demonstrated that "well-to-wire" GHG emissions from shale gas are about half that of coal, and not significantly different than emissions of conventional gas.

In addition, ExxonMobil is involved in researching emerging technologies that can help mitigate the risk of climate change. For example, the company has conducted research into combustion fundamentals with automotive partners in order to devise concepts to improve the efficiency and reduce emissions of internal combustion engines.

ExxonMobil has also developed technology for an on-board hydrogen-powered fuel cell that converts other fuels into hydrogen directly under a vehicle's hood, thereby eliminating the need for separate facilities for producing and distributing hydrogen. This

technology can be up to 80 percent more fuel efficient and emit 45 percent less CO2 than conventional internal combustion engines. The company is also a founding member of the Global Climate and Energy Project at Stanford University, a program that seeks to develop fundamental, game-changing scientific breakthroughs that could lower GHG emissions.

Government policy. Addressing climate risks is one of many important challenges that governments face on an ongoing basis, along with ensuring that energy supplies are affordable and accessible to meet societal needs.

Energy companies like ExxonMobil can play a constructive role in this decision-making process by sharing our insights on the most effective means of achieving society's goals given the workings of the global energy system and the realities that govern it.

The introduction of rising CO2 costs will have a variety of impacts on the economy and energy use in every sector and region within any given country. Therefore, the exact nature and pace of GHG policy initiatives will likely be affected by their impact on the economy, economic competitiveness, energy security and the ability of individuals to pay the related costs.

Governments' constraints on use of carbon-based energy sources and limits on greenhouse gas emissions are expected to increase throughout the Outlook period. However, the impact of these rising costs of regulations on the economy we expect will vary regionally throughout the world and will not rise to the level required for the "low carbon scenario." These reasonable constraints translate into costs, and these costs will help drive the efficiency gains that we anticipate will serve to curb energy growth requirements for society as forecasted over the Outlook period.

We also see these reasonable constraints leading to a lower carbon energy mix over the Outlook period, which can serve to further reduce greenhouse gas emissions. For example, fuel switching to cleaner burning fuels such as natural gas has significantly

contributed to the United States reducing greenhouse gas emissions last year to levels not seen since 1994. Furthermore, the impact of efficiency is expected to help stabilize and eventually to reduce GHG emissions over the Outlook period, as discussed previously. These constraints will also likely result in dramatic global growth in natural gas consumption at the expense of other forms of energy, such as coal.

We see the continued focus on efficiency, conservation and fuel switching as some of the most effective and balanced ways society can address climate change within the Outlook period in a manner that avoids the potentially harmful and destabilizing consequences that the artificial capping of needed carbon-based energy sources implied within the "low carbon scenario" can cause.[10]

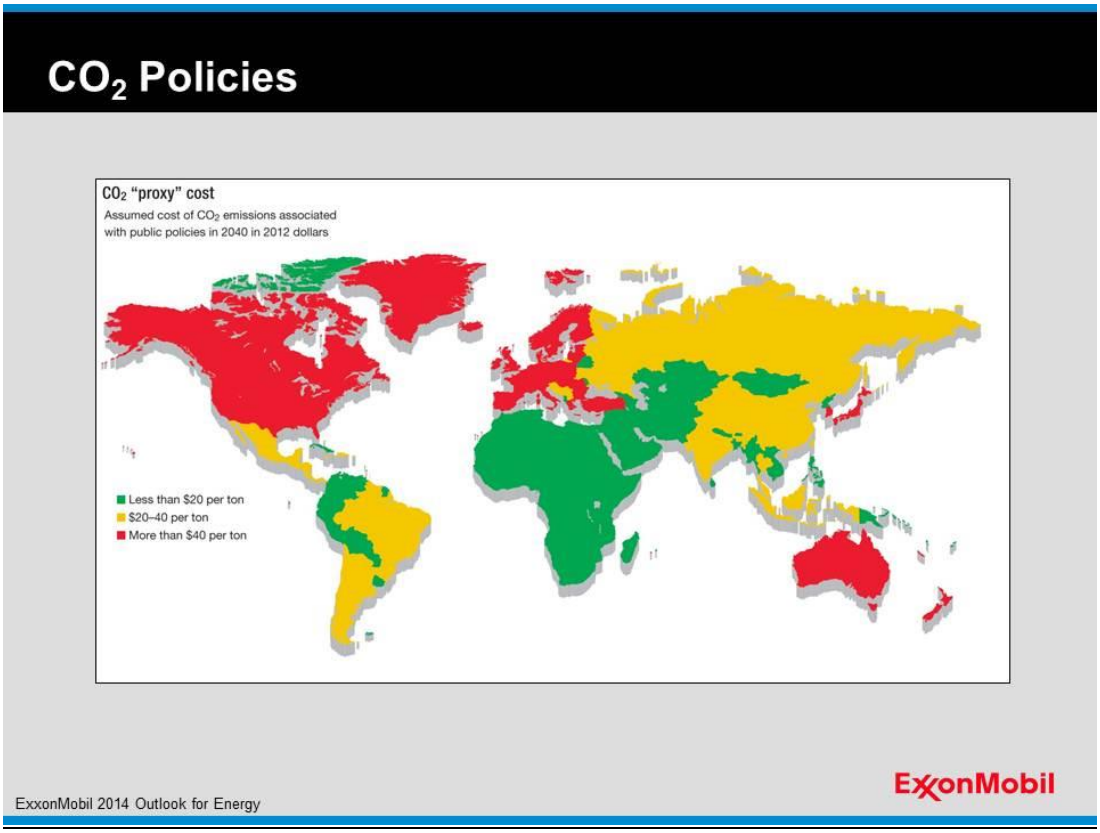
6. Planning Bases and Investments

ExxonMobil is committed to disciplined investing in attractive opportunities through the normal fluctuations in business cycles. Projects are evaluated under a wide range of possible economic conditions and commodity prices that are reasonably likely to occur, and we expect them to deliver competitive returns through the cycles. We do not publish the economic bases upon which we evaluate investments due to competitive considerations. However, we apply prudent and substantial safety margins in our planning assumptions to help ensure robust returns. In assessing the economic viability of proved reserves, we do not believe a scenario consistent with reducing GHG emissions by 80 percent by 2050, as suggested by the "low carbon scenario," lies within the "reasonably likely to occur" range of planning assumptions, since we consider the scenario highly unlikely.

The company also stress tests its oil and natural gas capital investment opportunities, which provides an added margin of safety against uncertainties, such as those related to technology, costs, geopolitics, availability of required materials, services, and labor, etc.

[10] Permitting the freer trade and export of natural gas is but one way, for example, where countries that rely on more carbon-intense forms of energy can increase their use of cleaner-burning fuels.

Such stress testing differs from alternative scenario planning, such as alternate Outlooks, which we do not develop, but stress testing provides us an opportunity to fully consider different economic scenarios in our planning and investment process. The Outlook is reviewed at least annually, and updated as needed to reflect changes in views and circumstances, including advances in technology.



We also address the potential for future climate-related controls, including the potential for restriction on emissions, through the use of a proxy cost of carbon. This proxy cost of carbon is embedded in our current *Outlook for Energy*, and has been a feature of the report for several years. The proxy cost seeks to reflect all types of actions and policies that governments may take over the Outlook period relating to the exploration, development, production, transportation or use of carbon-based fuels. Our proxy cost,

which in some areas may approach $80/ton over the Outlook period[11], is not a suggestion that governments should apply specific taxes. It is also not the same as a "social cost of carbon," which we believe involves countless more assumptions and subjective speculation on future climate impacts. It is simply our effort to quantify what we believe government policies over the Outlook period could cost to our investment opportunities. Perhaps most importantly, we require that all our business segments include, where appropriate, GHG costs in their economics when seeking funding for capital investments. We require that investment proposals reflect the climate-related policy decisions we anticipate governments making during the Outlook period and therefore incorporate them as a factor in our specific investment decisions.

When governments are considering policy options, ExxonMobil advocates an approach that ensures a uniform and predictable cost of carbon; allows market prices to drive solutions; maximizes transparency to stakeholders; reduces administrative complexity; promotes global participation; and is easily adjusted to future developments in climate science and policy impacts. We continue to believe a revenue-neutral carbon tax is better able to accommodate these key criteria than alternatives such as cap-and-trade.

Our views are based on our many years of successful energy experience worldwide and are similar to long-term energy demand forecasts of the International Energy Agency. As discussed previously, we see population, GDP and energy needs increasing for the world over the Outlook period, and that *all* economically viable energy sources will be required to meet these growing needs. We believe that governments will carefully balance the risk of climate change against other pressing social needs over the Outlook period, including the need for accessible, reliable and affordable energy, and that an artificial capping of carbon-based fuels to levels in the "low carbon scenario" is highly unlikely.

[11] As noted in our Outlook, this amount varies from country to country, with that amount generally equating to OECD countries, and lower amounts applying to non-OECD countries.

7. Capital Allocation

ExxonMobil maintains capital allocation discipline with rigorous project evaluation and investment selectivity, while consistently returning cash to our shareholders. Our capital allocation approach is as follows:

I. Invest in resilient, attractive business opportunities
II. Pay a reliable and growing dividend
III. Return excess cash to shareholders through the purchase of shares.

Although the company does not incorporate the "low carbon scenario" in its capital allocation plans, a key strategy to ensure investment selectivity under a wide range of economic assumptions is to maintain a very diverse portfolio of oil and gas investment opportunities. This diversity – in terms of resource type and corresponding development options (oil, gas, NGLs, onshore, offshore, deepwater, conventional, unconventional, LNG, etc.) and geographic dispersion is unparalleled in the industry. Further, the company does not believe current investments in new reserves are exposed to the risk of stranded assets, given the rising global need for energy as discussed earlier.

8. Optional Reserves Disclosure under SEC Rules

Some have suggested that ExxonMobil consider availing itself of an optional disclosure available to securities issuers under Item 1202 of SEC Regulation S-K. [12] That SEC item provides, among other things, that "the registrant may, but is not required to, disclose, in the aggregate, an estimate of reserves estimated for each product type based on different price and cost criteria, such as a range of prices and costs that may reasonably be

[12] The rules were subject to comment at the time that they were proposed. See Modernization of Oil and Gas Reporting, Securities and Exchange Commission, 17 CFR Parts 210, 211, 229, and 249 [Release Nos. 33-8995; 34-59192; FR-78; File Nos. S7-15-08] at p. 66. (***www.sec.gov****/rules/final/2008/33-8995.pdf)* ExxonMobil also provided comments to the proposed provision. See Letter of Exxon Mobil Corporation to Ms. Florence Harmon, Acting Secretary, Securities and Exchange Commission, September 5, 2008, File Number S7-15-08 – Modernization of the Oil and Gas Reporting Requirements at p. 24.

achieved, including standardized futures prices or management's own forecasts." Proponents ask the company to use this option to identify the price sensitivity of its reserves, with special reference to long-lived unconventional reserves such as oil sands.

We believe the public reporting of reserves is best done using the historical price basis as required under Item 1202(a) of Regulation S-K, rather than the optional sensitivity analysis under Item 1202(b), for several reasons. First and most importantly, historical prices are a known quantity and reporting on this basis provides information that can be readily compared between different companies and over multiple years.[13] Proved reserve reporting using historical prices is a conservative approach that gives investors confidence in the numbers being reported.

Using speculative future prices, on the other hand, would introduce uncertainty and potential volatility into the reporting, which we do not believe would be helpful for investors. In fact, we believe such disclosure could be misleading. Price forecasts are subject to considerable uncertainty. While ExxonMobil tests its project economics to ensure they will be robust under a wide variety of possible future circumstances, we do not make predictions or forecasts of future oil and gas prices. If reserves determined on a speculative price were included in our SEC filings, we believe such disclosure could potentially mislead investors, or give such prices greater weight in making investment decisions than would be warranted.

We are also concerned that providing the optional sensitivity disclosure could enable our competitors to infer commercial information about our projects, resulting in commercial harm to ExxonMobil and our shareholders. We note that none of our key competitors to our knowledge provide the Item 1202(b) sensitivity disclosure.

[13] We note the rules under 1202(a) use an average of monthly prices over the year rather than a single "spot" price, thus helping to reduce the effects of short-term volatility that often characterize oil and gas prices.

Lastly, we note that even when sensitivity disclosure under Item 1202(b) is included in a filing, the price and cost assumptions must be ones the company believes are reasonable. This disclosure item is therefore not intended or permitted to be a vehicle for exploring extreme scenarios.

For all the above reasons, we do not believe including the sensitivity disclosure under Item 1202(b) in our SEC filings would be prudent or in the best interest of our shareholders.

9. Summary

In summary, ExxonMobil's *Outlook for Energy* continues to provide the basis for our long-term investment decisions. Similar to the forecasts of other independent analysts, our Outlook envisions a world in which populations are growing, economies are expanding, living standards are rising, and, as a result, energy needs are increasing. Meeting these needs will require all economic energy sources, especially oil and natural gas.

Our *Outlook for Energy* also envisions that governments will enact policies to constrain carbon in an effort to reduce greenhouse gas emissions and manage the risks of climate change. We seek to quantify the cumulative impact of such policies in a proxy cost of carbon, which has been a consistent feature of our *Outlook for Energy* for many years.

We rigorously consider the risk of climate change in our planning bases and investments. Our investments are stress tested against a conservative set of economic bases and a broad spectrum of economic assumptions to help ensure that they will perform adequately, even in circumstances that the company may not foresee, which provides an additional margin of safety. We also require that all significant proposed projects include a cost of carbon – which reflects our best assessment of costs associated with potential GHG regulations over the Outlook period – when being evaluated for investment.

Our *Outlook for Energy* does not envision the "low carbon scenario" advocated by some because the costs and the damaging impact to accessible, reliable and affordable energy resulting from the policy changes such a scenario would produce are beyond those that societies, especially the world's poorest and most vulnerable, would be willing to bear, in our estimation.

In the final analysis, we believe ExxonMobil is well positioned to continue to deliver results to our shareholders and deliver energy to the world's consumers far into the future. Meeting the economic needs of people around the world in a safe and environmentally responsible manner not only informs our *Outlook for Energy* and guides our investment decisions, it is also animates our business and inspires our workforce.

10. Additional Information

There were additional information requests raised by some in the course of engagement with the groups with whom we have been dialoguing. These are addressed in the Appendix.

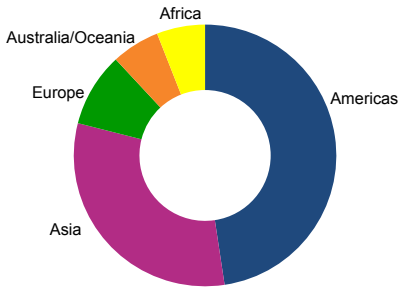
Appendix

EXXONMOBIL PROVED RESERVES - AT DECEMBER 31, 2013

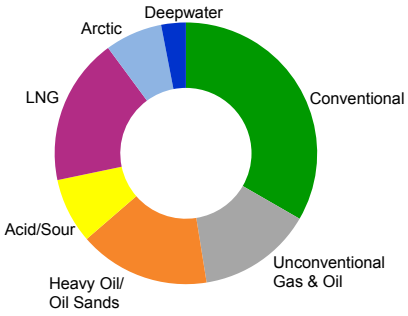
	United States	Canada/ S. Amer. (2)	Europe	Africa	Asia	Australia/ Oceania	Total	Worldwide	Canada/ S. Amer. (2)	Canada/ S. Amer. (2)	Total
				Crude Oil				Natural Gas Liquids (2)	Bitumen	Synthetic Oil	
Total liquids proved reserves (1) **(millions of barrels)**	2,338	284	273	1,193	3,308	155	7,551	1,479	3,630	579	13,239
				Natural Gas							
Total natural gas proved reserves (1) **(billions of cubic feet)**	26,301	1,235	11,694	867	24,248	7,515	71,860	-	-	-	71,860
Oil-Equivalent Total All Products (3) **(millions of oil-equivalent barrels)**	6,722	490	2,222	1,338	7,349	1,407	19,528	1,479	3,630	579	25,216

Proved Reserves Distribution (4)
(percent, oil equivalent barrels)

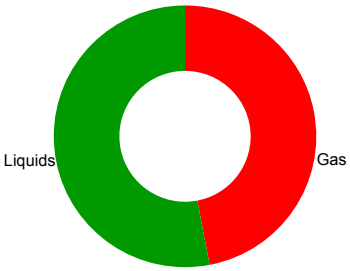
By Region



By Resource Type

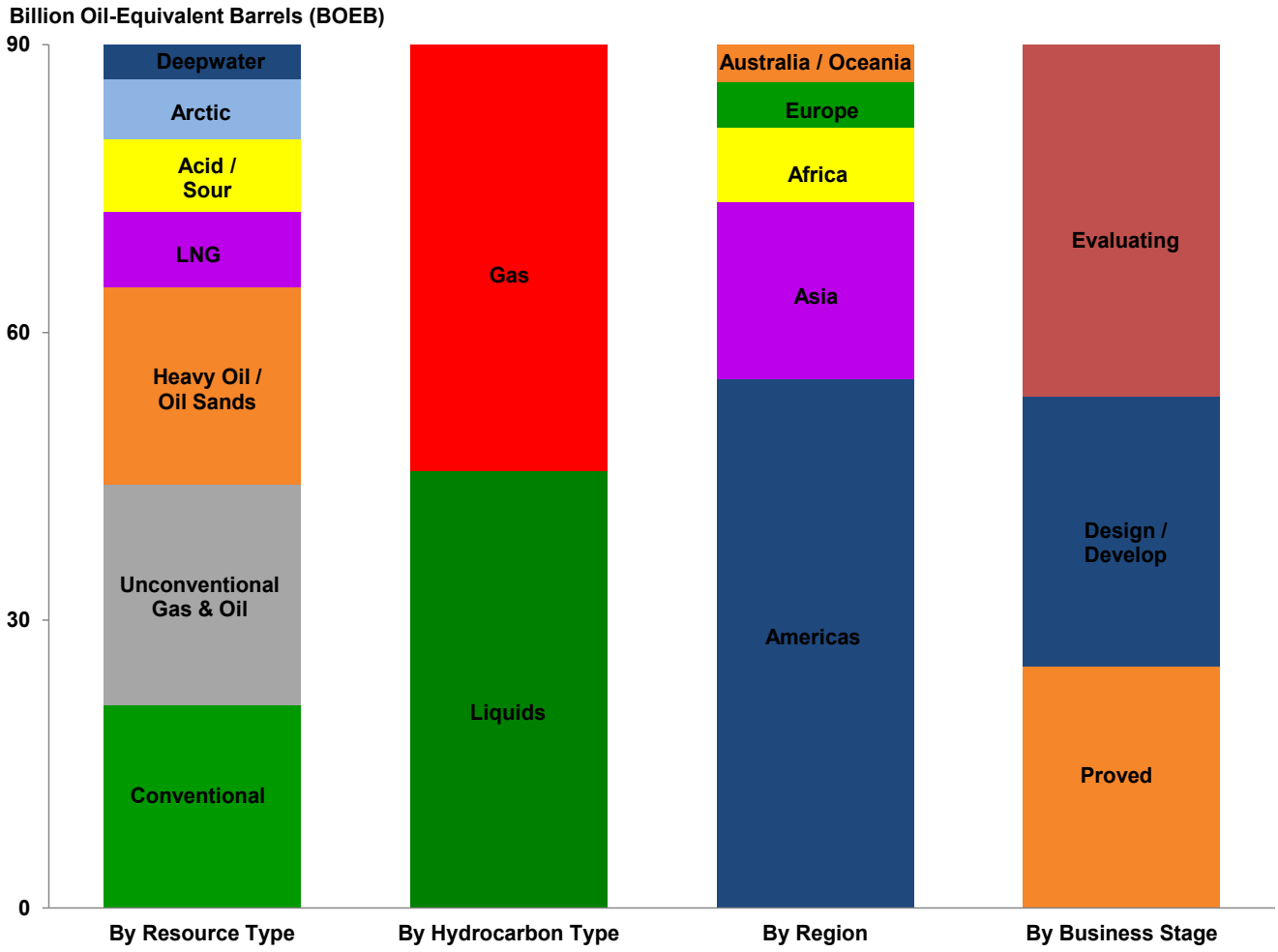


By Hydrocarbon Type



(1) Source: ExxonMobil 2013 Form 10-K (pages 103 and 106).
(2) Includes total proved reserves attributable to Imperial Oil Limited, in which there is a 30.4 percent noncontrolling interest. Refer to ExxonMobil 2013 Form 10-K (pages 103, 104, and 106) for more details.
(3) Natural gas is converted to oil-equivalent basis at six million cubic feet per one thousand barrels.
(4) Source: ExxonMobil 2013 Financial and Operating Review (page 22).

EXXONMOBIL RESOURCE BASE – AT DECEMBER 31, 2013 (1)



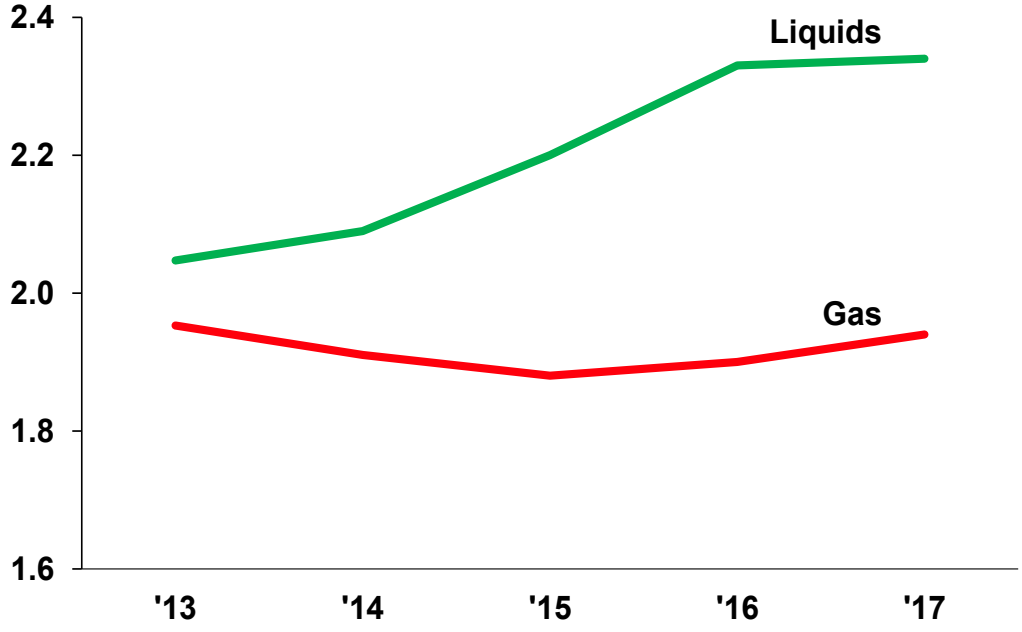
(1) Source: 2013 ExxonMobil Financial & Operating Review (page 21) and 2014 Analyst Meeting (slide 49).

Note: ExxonMobil's resource base includes quantities of oil and gas that are not yet classified as proved reserves under SEC definitions, but that we believe will ultimately be developed. These quantities are also not intended to correspond to "probable" or "possible" reserves under SEC rules.

EXXONMOBIL OIL & GAS PRODUCTION OUTLOOK (1)

Total Production Outlook (2)

Millions Oil-Equivalent Barrels Per Day (MOEBD), net



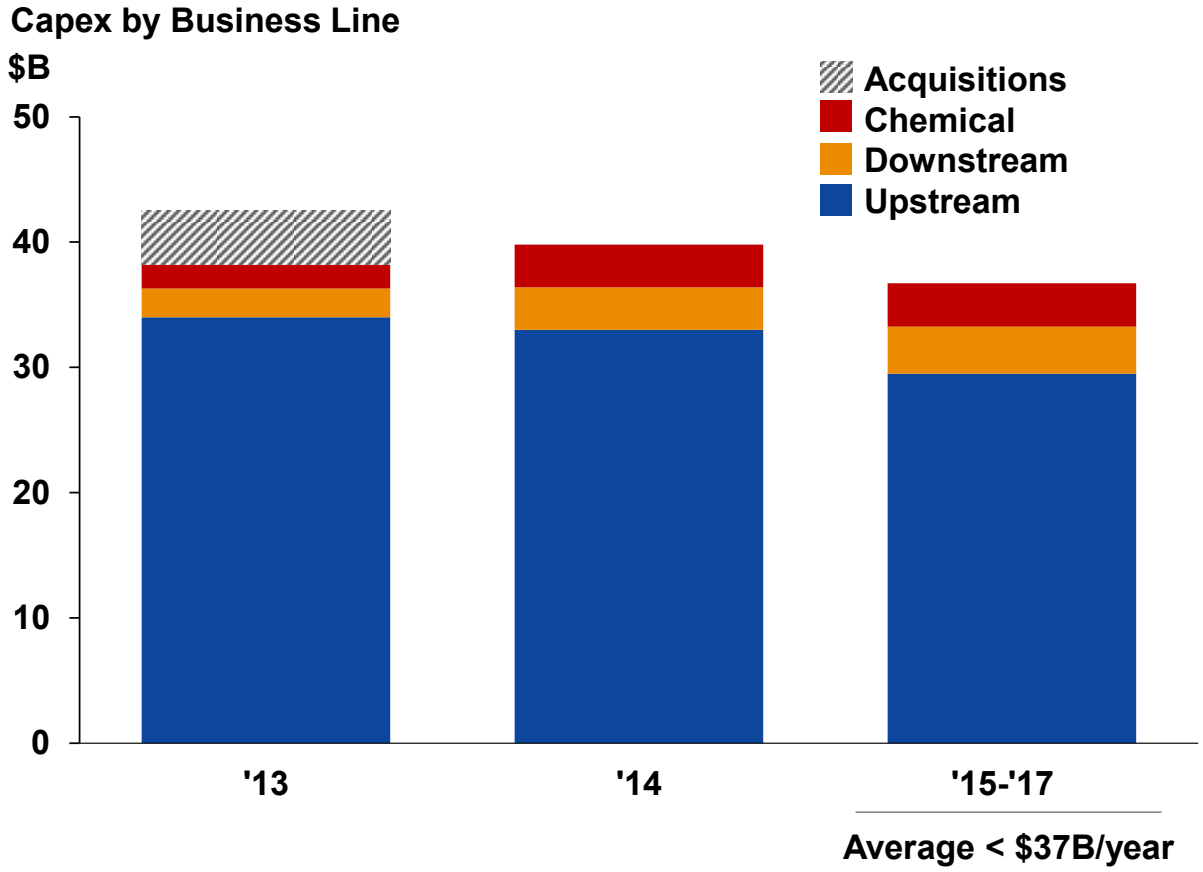
	'13	'14	'15	'16	'17
Total	4.0	4.0	4.1	4.2	4.3

- Total production outlook
  - 2014: Flat
  - 2015 – 2017: up 2-3% per year
- Liquids outlook
  - 2014: up 2%
  - 2015 – 2017: up 4% per year
- Gas outlook
  - 2014: down 2%
  - 2015 – 2017: up 1% per year

(1) Source 2014 ExxonMobil Analyst Meeting (slide 32).

(2) 2013 production excludes the impact of UAE onshore concession expiry and Iraq West Qurna 1 partial divestment. Production outlook excludes impact from future divestments and OPEC quota effects. Based on 2013 average price ($109 Brent).

EXXONMOBIL CAPEX OUTLOOK (1)



- Expect to invest $39.8B in 2014
  - Reduced Upstream spending
  - Selective Downstream and Chemical investments
- Average less than $37B per year from 2015 to 2017

(1) Source 2014 ExxonMobil Analyst Meeting (slide 33).

EXXONMOBIL OIL & GAS EXPLORATION AND PRODUCTION EARNINGS AND UNIT PROFITABILITY (1)

The revenue, cost, and earnings data are shown both on a total dollar and a unit basis, and are inclusive of non-consolidated and Canadian oil sands operations.

	Total Revenues and Costs, Including Non-Consolidated Interests and Oil Sands							Revenues and Costs per Unit of Sales or Production (2)			
	United States	Canada/ South America	Europe	Africa	Asia	Australia/ Oceania	Total	United States	Canada/ South America	Outside Americas	Worldwide
2013	*(millions of dollars)*							*(dollars per unit of sales)*			
Revenue											
Liquids	**13,350**	**7,558**	**6,751**	**18,811**	**28,440**	**1,596**	**76,506**	**84.87**	**75.28**	**101.92**	**95.25**
Natural gas	**3,880**	**360**	**11,384**	**6**	**13,477**	**539**	**29,646**	**3.00**	**2.80**	**8.77**	**6.86**
								(dollars per barrel of net oil-equivalent production)			
Total revenue	**17,230**	**7,918**	**18,135**	**18,817**	**41,917**	**2,135**	**106,152**	**46.20**	**63.93**	**78.86**	**69.66**
Less costs:											
Production costs excluding taxes	**4,742**	**3,965**	**3,318**	**2,396**	**2,423**	**654**	**17,498**	**12.72**	**32.02**	**8.56**	**11.48**
Depreciation and depletion	**5,133**	**989**	**2,050**	**3,269**	**2,635**	**334**	**14,410**	**13.76**	**7.99**	**8.07**	**9.46**
Exploration expenses	**413**	**386**	**260**	**288**	**997**	**92**	**2,436**	**1.11**	**3.12**	**1.59**	**1.60**
Taxes other than income	**1,617**	**94**	**4,466**	**1,583**	**9,146**	**427**	**17,333**	**4.33**	**0.74**	**15.21**	**11.37**
Related income tax	**1,788**	**542**	**4,956**	**6,841**	**14,191**	**202**	**28,520**	**4.79**	**4.38**	**25.50**	**18.72**
Results of producing activities	**3,537**	**1,942**	**3,085**	**4,440**	**12,525**	**426**	**25,955**	**9.49**	**15.68**	**19.93**	**17.03**
Other earnings (3)	**662**	**(495)**	**302**	**59**	**234**	**(118)**	**644**	**1.77**	**(4.00)**	**0.47**	**0.42**
Total earnings, excluding power and coal	**4,199**	**1,447**	**3,387**	**4,499**	**12,759**	**308**	**26,599**	**11.26**	**11.68**	**20.40**	**17.45**
Power and coal	**(8)**	**-**	**-**	**-**	**250**	**-**	**242**				
Total earnings	**4,191**	**1,447**	**3,387**	**4,499**	**13,009**	**308**	**26,841**	**11.23**	**11.68**	**20.64**	**17.61**
								Unit Earnings Excluding NCI Volumes (4)			**18.03**

(1) Source: ExxonMobil 2013 Financial and Operating Review (page 56).

(2) The per-unit data are divided into two sections: (a) revenue per unit of sales from ExxonMobil's own production; and, (b) operating costs and earnings per unit of net oil-equivalent production. Units for crude oil and natural gas liquids are barrels, while units for natural gas are thousands of cubic feet. The volumes of crude oil and natural gas liquids production and net natural gas production available for sale used in this calculation are shown on pages 48 and 49 of ExxonMobil's 2013 Financial & Operating Review. The volumes of natural gas were converted to oil-equivalent barrels based on a conversion factor of 6 thousand cubic feet per barrel.

(3) Includes earnings related to transportation operations, LNG liquefaction and transportation operations, sale of third-party purchases, technical services agreements, other nonoperating activities, and adjustments for noncontrolling interests.

(4) Calculation based on total earnings (net income attributable to ExxonMobil) divided by net oil-equivalent production less noncontrolling interest (NCI) volumes.

EXXONMOBIL
PRODUCTION PRICES AND PRODUCTION COSTS (1)

The table below summarizes average production prices and average production costs by geographic area and by product type.

	United States	Canada/ S. America	Europe	Africa	Asia	Australia/ Oceania	Total
During 2013			*(dollars per unit)*				
Total							
Average production prices (2)							
Crude oil, per barrel	95.11	98.91	106.49	108.73	104.98	107.92	104.01
NGL, per barrel	44.24	44.96	65.36	75.24	61.64	59.55	56.26
Natural gas, per thousand cubic feet	3.00	2.80	9.59	2.79	8.53	4.20	6.86
Bitumen, per barrel	-	59.63	-	-	-	-	59.63
Synthetic oil, per barrel	-	93.96	-	-	-	-	93.96
Average production costs, per oil-equivalent barrel - total (3)	12.72	32.02	12.42	13.95	4.41	16.81	11.48
Average production costs, per barrel - bitumen (3)	-	34.30	-	-	-	-	34.30
Average production costs, per barrel - synthetic oil (3)	-	50.94	-	-	-	-	50.94

(1) Source: ExxonMobil 2013 Form 10-K (page 9)

(2) *Revenue per unit of sales from ExxonMobil's own production. (See ExxonMobil's 2013 Financial & Operating Review, page 56.) Revenue in this calculation is the same as in the Results of Operations disclosure in ExxonMobil's 2013 Form 10-K (page 97) and does not include revenue from other activities that ExxonMobil includes in the Upstream function, such as oil and gas transportation operations, LNG liquefaction and transportation operations, coal and power operations, technical service agreements, other nonoperating activities and adjustments for noncontrolling interests, in accordance with Securities and Exchange Commission and Financial Accounting Standards Board rules.*

(3) *Production costs per unit of net oil-equivalent production. (See ExxonMobil's 2013 inancial & Operating Review, page 56.) The volumes of natural gas were converted to oil-equivalent barrels based on a conversion factor of 6 thousand cubic feet per barrel. Production costs in this calculation are the same as in the Results of Operations disclosure in ExxonMobil's 2013 Form 10-K (page 97) and do not include production costs from other activities that ExxonMobil includes in the Upstream function, such as oil and gas transportation operations, LNG liquefaction and transportation operations, coal and power operations, technical service agreements, other nonoperating activities and adjustments for noncontrolling interests, in accordance with Securities and Exchange Commission and Financial Accounting Standards Board rules. Depreciation & depletion, exploration costs, and taxes are not included in production costs.*

Seriatim of crudes processed in US in 2012

Well-to-wheels GHG emissions: Oil sands compared to other crude oils (Wide boundary—$kgCO_2e$/barrel of refined product)

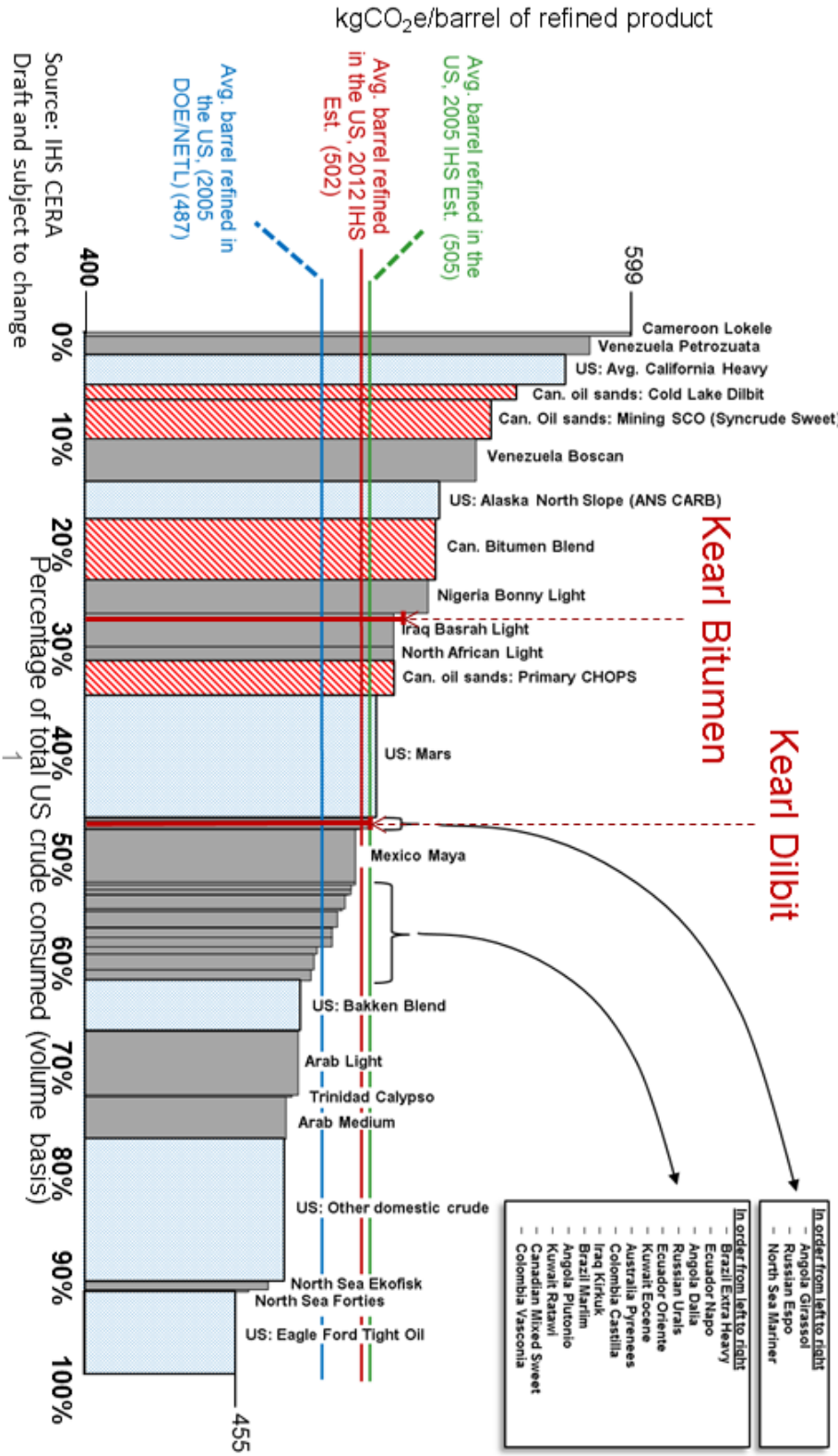


Exhibit S57

ExxonMobil

2017 Outlook for Energy: A View to 2040

2017 Outlook for Energy:

A View to 2040

The *Outlook for Energy* is ExxonMobil's global view of energy demand and supply through 2040. We use the data and findings in the book to help guide our long-term investments. It also highlights the dual challenge of ensuring the world has access to affordable and reliable energy supplies while reducing emissions to address the risk of climate change. We share the *Outlook* with the public to help promote a better understanding of the issues shaping the world's energy needs.

Why is this important? Because energy is fundamental to modern life. It is critical to human progress and to improving living standards for billions of people across the globe.

Our energy to 2040: Seven things to know

Modern energy is one of mankind's most complex endeavors, and its path is shaped by countless forces. However, we see seven key themes that will play a major role in defining our global energy landscape through 2040.

Energy underpins economic growth

High levels of growth mean rising living standards. Across the world, the middle class will more than double in the next 15 years. As this growth accelerates so does consumption. Demand for energy increases with more people expecting access to air conditioned homes, cars and appliances like refrigerators, dishwashers and smartphones.

Non-OECD countries lead the way for energy demand

Continuing urbanization in China and India, with people moving from rural areas to cities, will help to drive economic growth. China is likely to be the largest contributor of Gross Domestic Product (GDP) gains. India is also growing strongly with its share of global GDP doubling.

The global energy mix is evolving

As global economies grow and government policies change, the energy mix will continue to diversify. Nuclear and renewables will grow strongly with natural gas growing the most. The diversification of energy supplies reflects economics and advanced technologies as well as policies aimed at reducing emissions.

Oil remains the world's primary energy source

Oil will continue to play a leading role in the energy mix with demand being driven by fuel for transportation and feedstock for the chemicals industry. These feedstocks help to make plastics and other advanced materials that provide advantages to manufacturers and consumers including energy efficiency gains.

Natural gas leads growth in energy

Natural gas is the largest growing fuel source, providing a quarter of global energy demand by 2040. The abundance and versatility of natural gas is helping the world shift to less carbon-intensive energy for electricity generation while also providing an emerging option as a fuel for certain types of transportation.

Cost-effective options to reduce CO_2 emissions

Delivering on the increased demand for energy needs to go hand in hand with finding constructive solutions that mitigate the risk of climate change. This is supported by the continuing shift to less carbon-intensive energy for power generation and increased energy efficiency in every sector. Global energy-related CO_2 emissions are likely to peak during the 2030s, even as global GDP doubles by 2040.

The potential of technology

As the pace of technology development continues to accelerate, new – and still uncertain – solutions are likely to emerge to contribute to meeting energy and environmental goals. Recent advances in technology are promoting energy efficiency gains to slow demand growth, and also opening up new energy supply options including unconventional oil and natural gas, nuclear and renewables.

01

Fundamentals

What will the world's energy picture look like in the future?

To find the answer, start by studying the world's long-term demographic and economic trends. By 2040, world population is expected to reach 9.1 billion, up from 7.3 billion today.

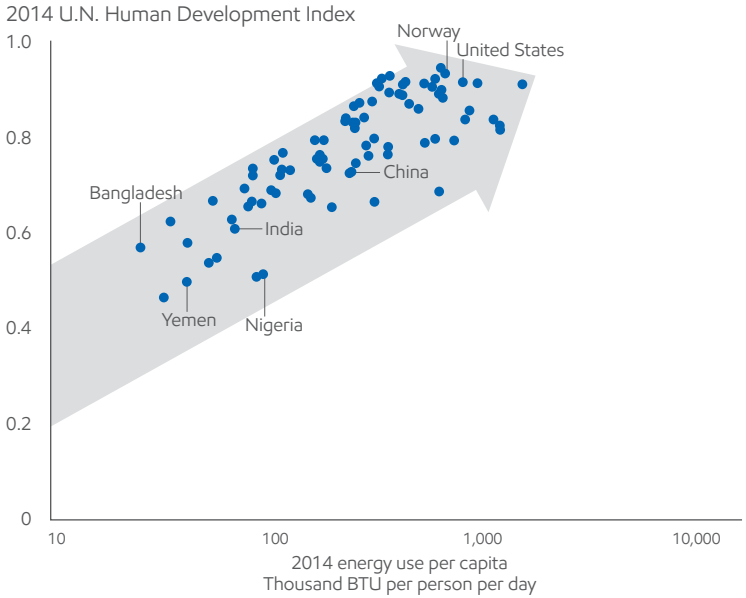
Over that same period, global GDP will effectively double, with non-member countries of the Organisation of Economic Co-operation and Development (OECD) seeing particularly high levels of economic growth. This means rising living standards in essentially every corner of the world, and billions of people joining the global middle class.

This economic expansion, coupled with growing numbers of people, will help drive up global energy demand by about 25 percent by the year 2040, similar to adding another North America and Latin America to the world's current energy demand.

The world will need to pursue all economic energy sources to keep up with this considerable demand growth. Oil and natural gas will likely be nearly 60 percent of global supplies in 2040, while nuclear energy and renewables will grow about 50 percent and be approaching a 25 percent share of the world's energy mix.

Global fundamentals – projections

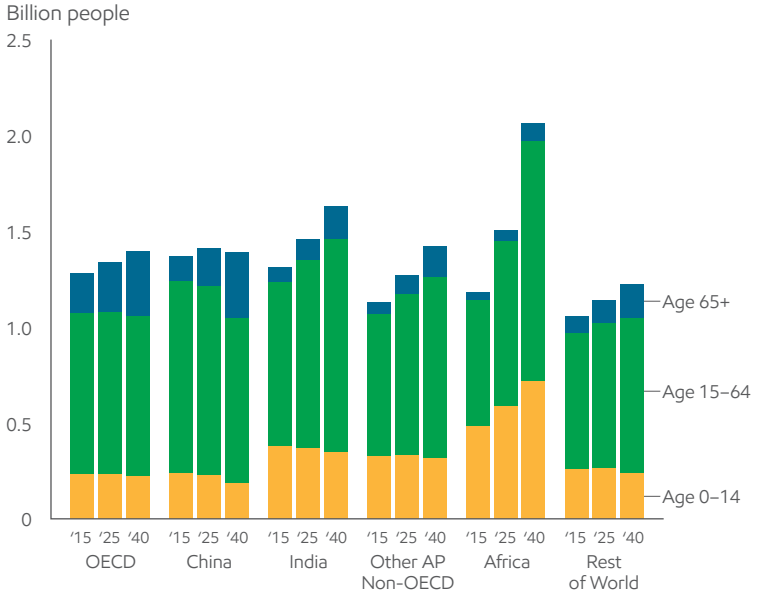
Energy fuels human development



Source: United Nations, ExxonMobil estimates

- Energy plays a critical role in supporting modern living standards around the world
- The U.N. Human Development Index summarizes a society's achievements in its citizens' life expectancy, education and income
- A country's energy use per capita is well-aligned with its level of human development

World demographics continue to shift



Source: World Bank, ExxonMobil estimates

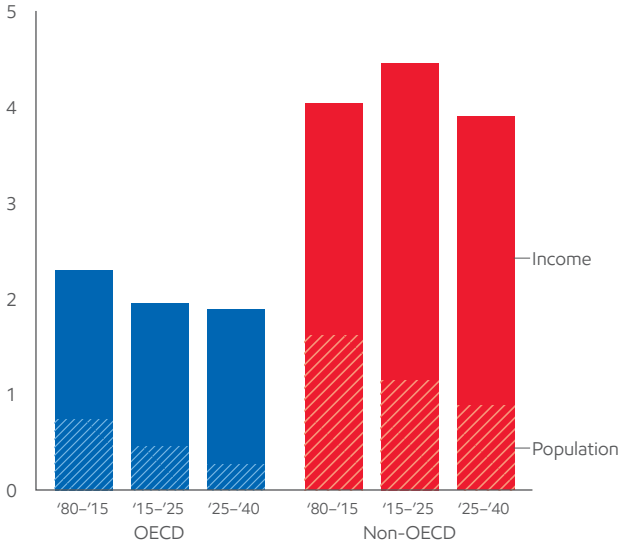
- World population grows from 7.3 billion today to 9.1 billion people in 2040
- India likely to replace China as the most populous nation by 2025
- Working age population has already peaked in China; likely to remain flat in OECD nations but expand in other regions
- Africa's population increases at the fastest rate across major regions
- The share of people age 65+ gains significance, notably in OECD and China

01 Fundamentals

Global fundamentals – projections

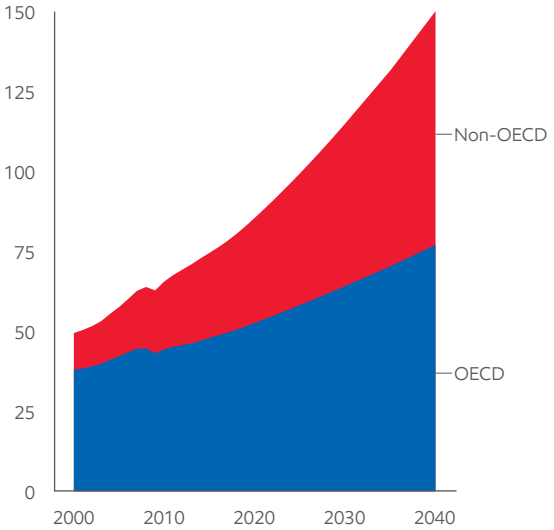
Non-OECD leads economic expansion

GDP, year-over-year average in percent



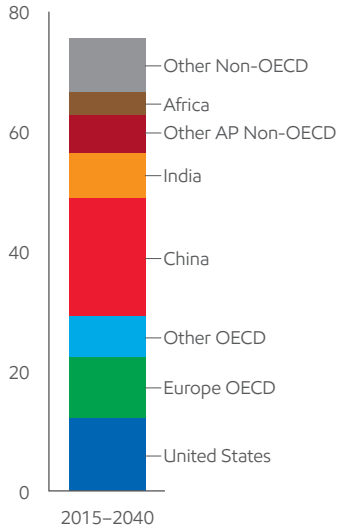
World GDP doubles

Trillions of 2010 dollars



World GDP growth

Trillions of 2010 dollars

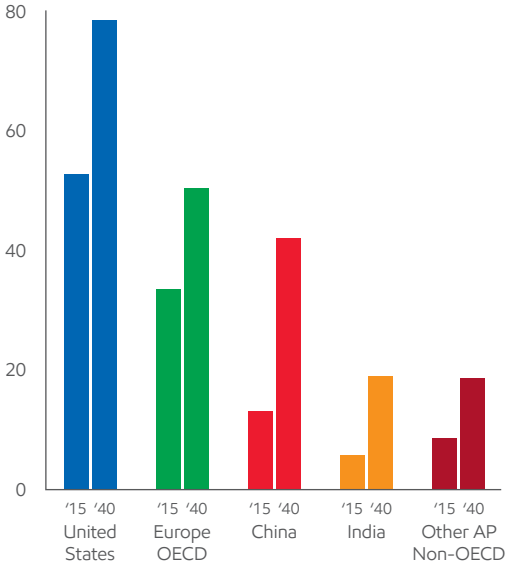


- Economic output (GDP) growth consists of both income (measured by GDP per capita) and population growth
- OECD GDP growth trend reflects declining population growth and steady rise of income
- Non-OECD GDP growth to 2025 reflects improving outlook for income growth while population growth slows
- Non-OECD GDP growth post 2025 will moderate due to lower population growth and slowing gains in income

- World GDP doubles from 2015 to 2040, with non-OECD GDP increasing 175 percent and OECD GDP growing 60 percent
- Non-OECD share of global GDP will rise to about 50 percent by 2040, up from about 35 percent in 2015
- China is likely to be the largest contributor of GDP gains, with its share of global GDP in 2040 similar to that of Europe OECD and the U.S. at close to 20 percent
- India will grow strongly with its share of global GDP doubling

Purchasing power expands

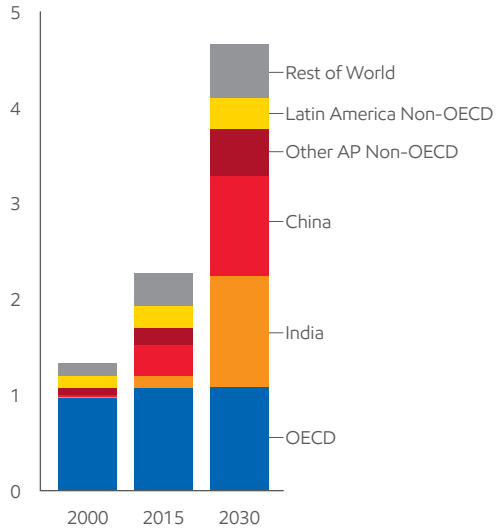
GDP per capita, thousand of PPP dollars



- All regions show significant gains in GDP per capita by 2040
- GDP per capita in OECD nations currently averages about four times that of non-OECD economies
- U.S. GDP per capita is likely to reach almost $80,000 by 2040, while Europe OECD reaches $50,000
- China GDP per capita likely to triple, reaching over $40,000
- India also triples but at less than half of China's level in 2040

Middle-class expansion accelerates

Billion people



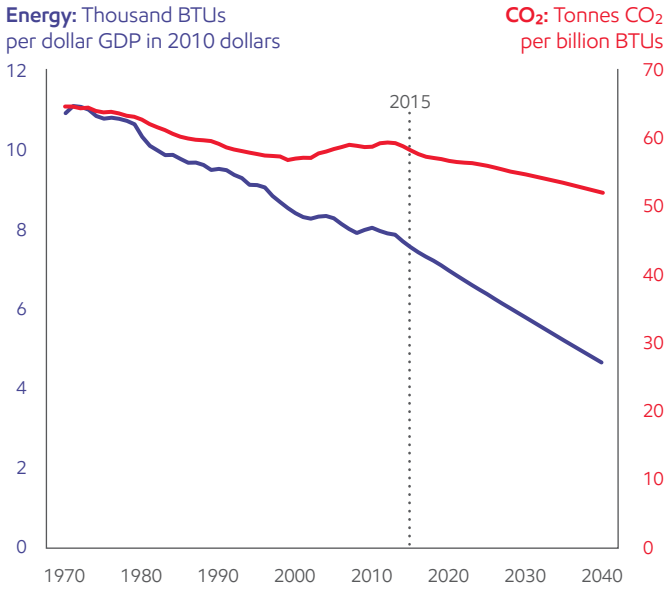
Source: The Brookings Institution

- Middle class expands on a global basis, more than doubling by 2030 to reach almost 5 billion people
- All of the growth is projected to come from non-OECD with OECD holding its middle-class population steady
- India and China show the largest increases with each reaching more than 1 billion middle-class citizens
- These gains will enable longer, healthier and better lives for billions

01 Fundamentals

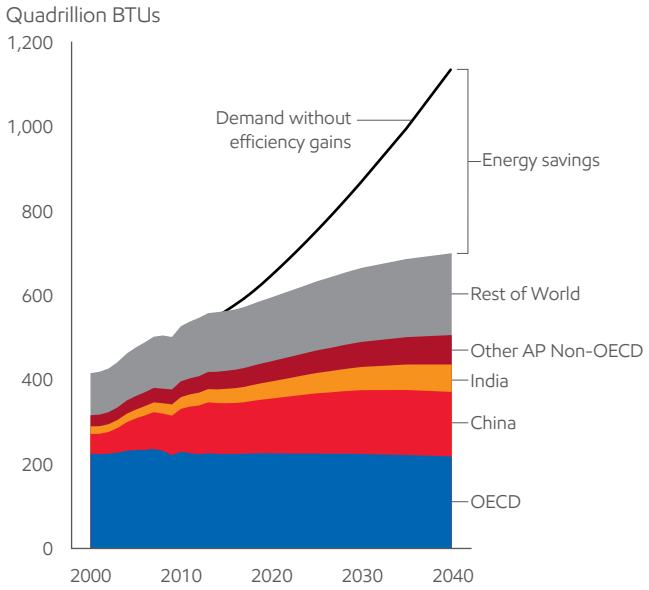
Global fundamentals – projections

Technology helps us do more with less



- Technology helps the world use energy more efficiently by reducing energy intensity (the amount of energy used per unit of economic output)
- Since 1970, global energy intensity has fallen about 1 percent per year on average; this decline is likely to average about 2 percent per year from 2015 to 2040
- Technology also helps moderate the carbon intensity of energy use, which will help lower the carbon intensity of the world economy (tonnes CO_2 per unit of GDP) by 45 percent by 2040

Global efficiency limits demand growth



- Without efficiency improvements, global energy demand would increase significantly
- Actual demand is expected to increase about 25 percent from 2015 to 2040, reflecting large savings due to efficiency improvements
- Demand growth will come from non-OECD nations, where energy use will rise about 40 percent, led by Asia Pacific
- Demand in Africa, Latin America and the Middle East will also grow strongly

02

Demand

Global demand for energy is expected to climb about 25 percent by 2040, and would soar significantly higher – closer to a 100 percent increase – but for anticipated efficiency gains across the economy.

Essentially all of this demand growth will come from non-OECD nations, particularly the expanding economies in the Asia Pacific region.

Continuing urbanization and a significant expansion of the middle class, particularly in China and India, will help drive this trend, highlighted by greater access to modern energy in homes, rising industrial demand, and significant increases in personal and commercial transportation needs.

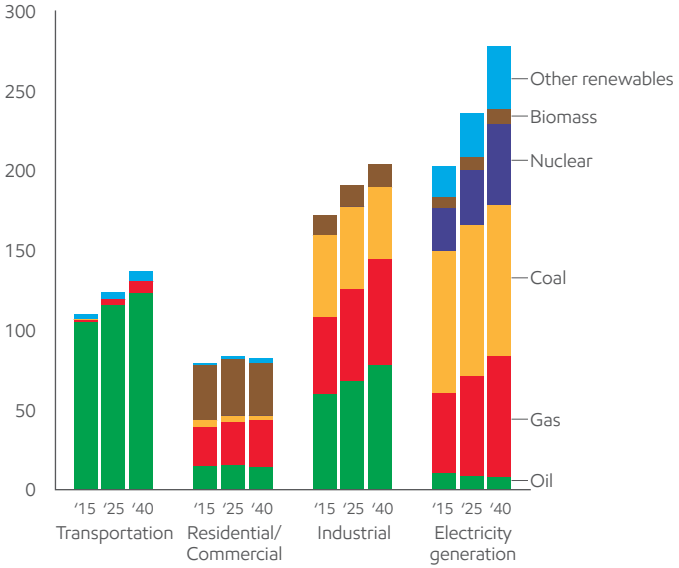
Growth in global energy demand will be led by the increasing electrification of the global economy; 55 percent of the world's energy demand growth over the next quarter century will be tied to power generation to support our increasingly digital and plugged-in lives. A consequence of this trend will be a large uptick in demand for many types of energy used to generate electricity, notably less carbon-intensive sources such as natural gas, nuclear, solar and wind.

02 Demand

Demand – projections

Energy demand varies by sector

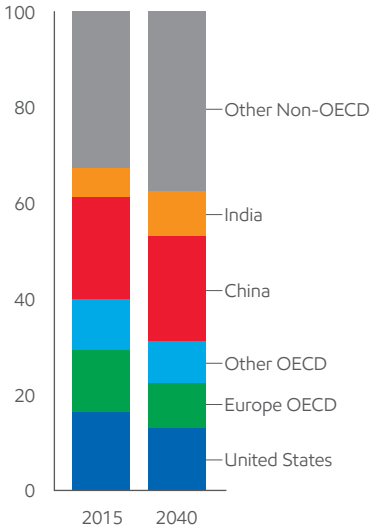
Primary energy—quadrillion BTUs



- Energy used in each sector reflects economic supply options and their general fitness for purpose
- Electricity generation is the largest and fastest growing demand sector, reflecting strong growth in global electricity demand
- A wide variety of energy types will support electricity generation, with natural gas, nuclear and renewables increasing their share
- Natural gas demand increases significantly and gains share in all sectors
- Oil demand grows to support commercial transportation and chemical needs

Global energy demand shifts toward non-OECD

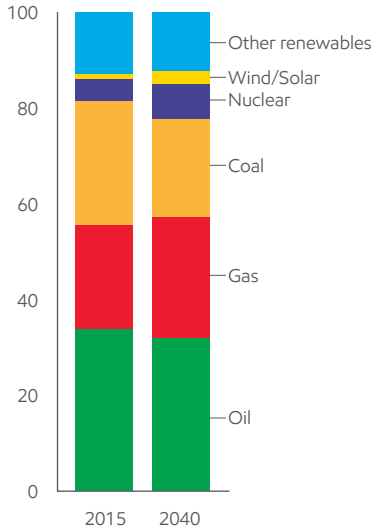
Percent share



- Global demand reaches 700 quadrillion BTUs in 2040, up about 25 percent
- Non-OECD share of global energy demand reaches about 70 percent in 2040, as efficiency gains and economic growth slows in the U.S. and OECD nations, helping keep energy demand relatively flat
- China and India contribute about 45 percent of world energy demand growth to 2040
- The combined share of energy used in the U.S. and Europe OECD nations will decline from 30 percent in 2015 to close to 20 percent in 2040, similar to China's share of world energy demand

Global energy mix evolves

Share of primary energy



- Oil remains the world's primary energy source through 2040, meeting about one-third of demand
- Natural gas grows the most of any energy type, reaching a quarter of all demand
- Coal remains important in parts of the world, but loses significant share as the world transitions toward energy sources with lower emissions
- Nuclear and renewables see strong growth, contributing close to 40 percent of incremental energy supplies to meet demand growth

Learn more

Want to learn more about global trends in energy demand?

Visit us at:
exxonmobil.com/energyoutlook
and see our infographic
"A global economy on the move"

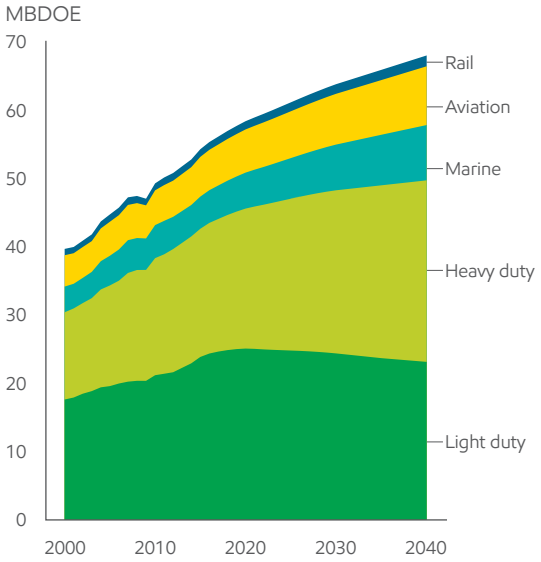
02 Demand

Transportation

Advancements in transportation have shrunk our world, while opening up new vistas and possibilities. One consequence of billions of people joining the global middle class in the next quarter century is that it will lead to greater travel, additional cars on the road, and increased commercial activity. Global transportation-related energy demand is projected to increase by about 25 percent. At the same time, total miles traveled per year by cars, sport utility vehicles (SUVs) and light trucks will increase about 60 percent, reaching about 14 trillion in 2040. As personal mobility increases, average new-car fuel economy (including SUVs and light trucks) will improve as well, rising from about 30 miles per gallon (mpg) now to close to 50 mpg in 2040.

Transportation – projections

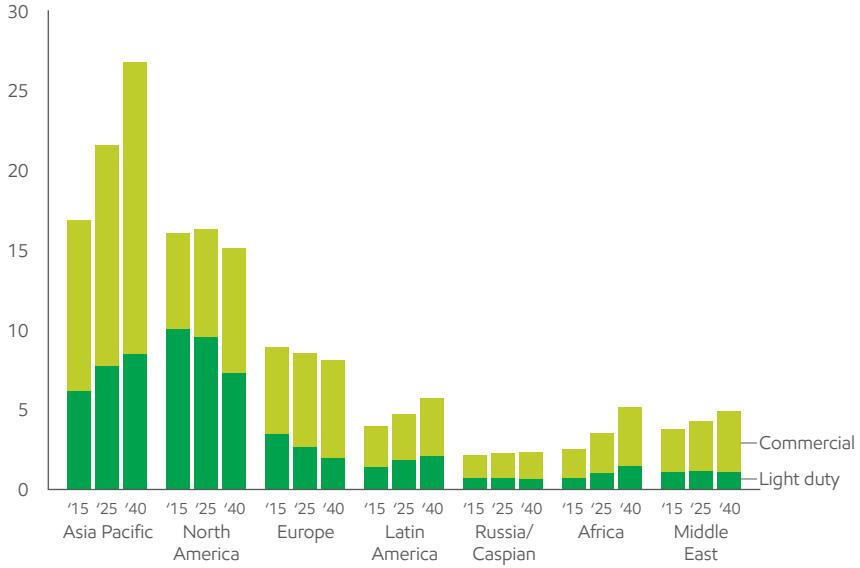
Global transportation demand moves higher



- Global transportation demand grows about 25 percent from 2015-2040
- Personal mobility demands continue to increase, but more efficient vehicles lead to a peak and eventual decline in light-duty vehicle (LDV) energy demand
- Growth in economic activity and personal income drives increasing trade of goods and services, leading to higher energy demand in the commercial transportation sectors
- Heavy duty growth is the largest by volume, but marine and aviation grow the largest by percentage

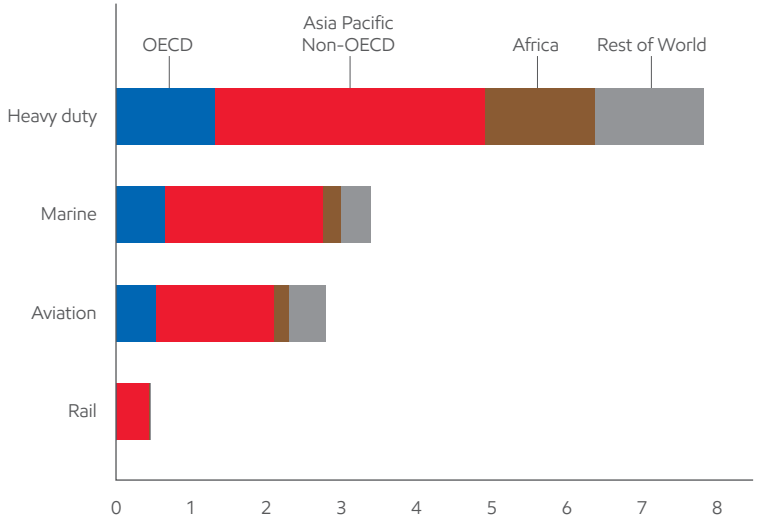
Transportation demand varies by region/sector

MBDOE



Commercial transportation grows in all aspects

MBDOE, 2015–2040



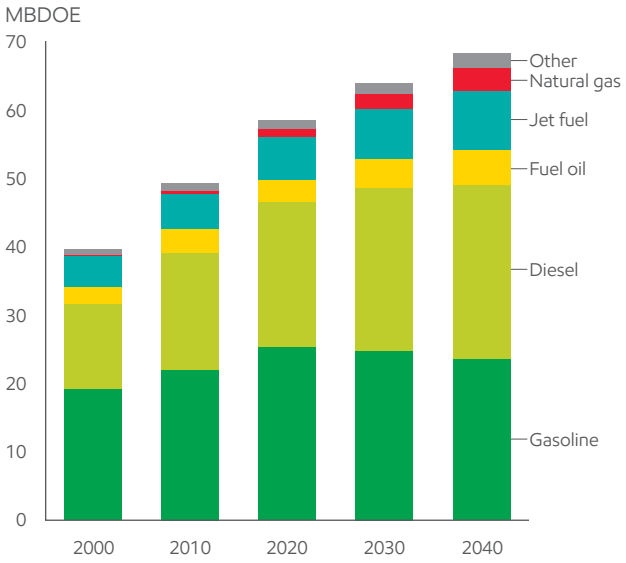
- Commercial transportation energy demand grows in all regions as economic growth stimulates demand for trucking, aviation, marine and rail
- Majority of growth in commercial transportation occurs in the non-OECD, consistent with the growth in GDP
- Light-duty vehicle energy demand decreases throughout much of the OECD, including North America and Europe, as efficiency gains outweigh the increases in the number of vehicles and miles traveled
- LDV energy demand increases throughout the non-OECD, led by Asia Pacific, Africa and the Middle East as car penetration rises with economic growth

- Significant efficiency gains help limit growth in commercial transportation energy use to about 70 percent in the non-OECD and 20 percent in the OECD from 2015-2040
- Technology advances in trucks will come from engine designs, aerodynamic improvements to the body design and hybridization
- Marine and air transport see efficiency gains from improved body design, engine improvements and logistics

02 Demand

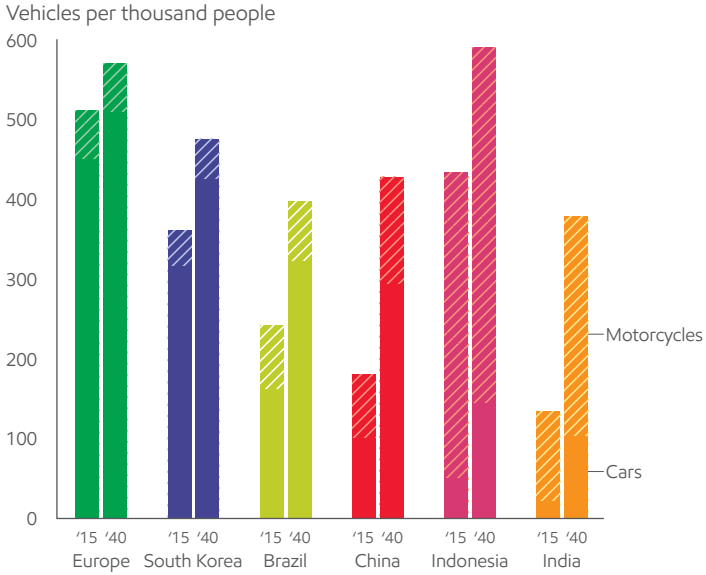
Transportation – projections

Global transportation energy mix evolves



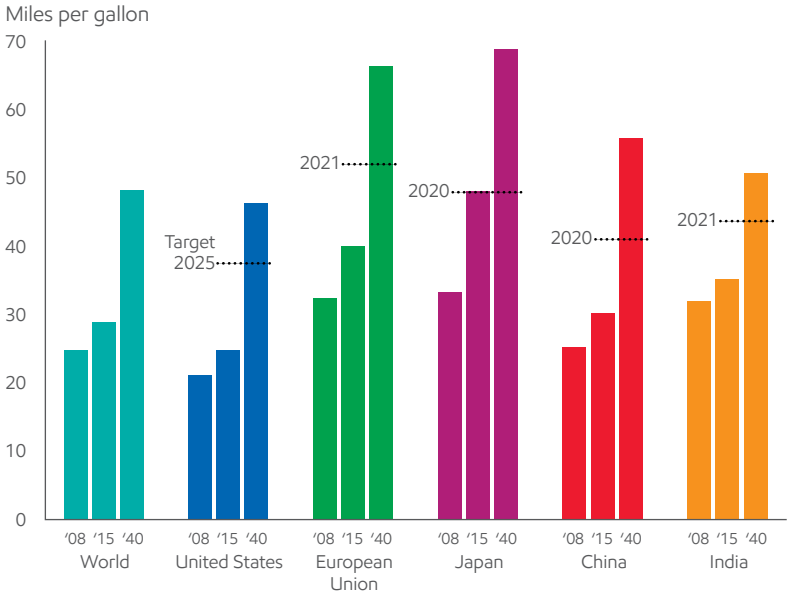
- Oil meets about 95 percent of transportation energy needs due to widespread availability, economic advantages and high energy density
- Gasoline demand flattens as average new-car fuel economy improves
- Diesel demand grows 30 percent to meet trucking and marine needs, while jet fuel demand rises about 50 percent
- Fuel oil will continue to be used in marine shipping, though utilized with scrubbers or desulfurized to meet regulatory requirements
- Natural gas, biofuels and electricity grow significantly in select sectors

Access to personal mobility increases



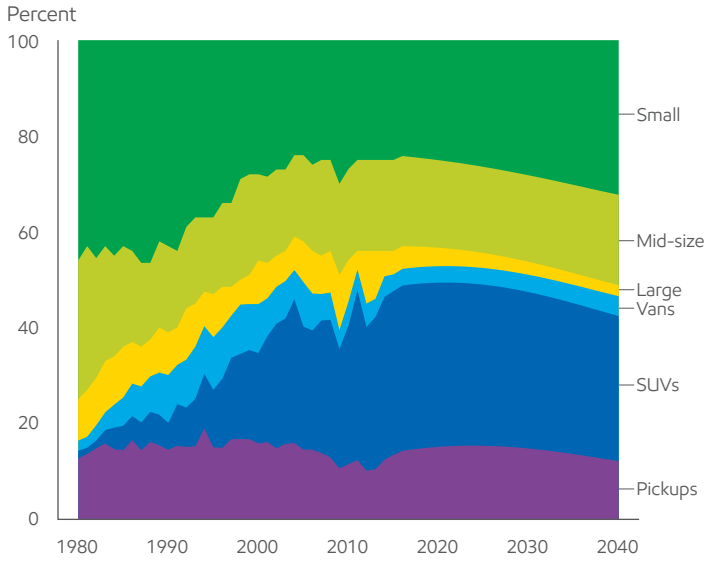
- As incomes rise, individuals seek access to personal mobility that is afforded by cars and motorcycles
- Motorcycles facilitate a lower cost entry point to personal mobility, with ownership particularly high in Asia Pacific
- Car ownership significantly increases in the non-OECD, with Asia Pacific leading the growth
- In the OECD, the fleet grows but cars per 1,000 people increases only by about 10 percent from 2015-2040

Average new-car fuel economy to improve rapidly



- Fuel economy of cars has improved in recent years as many nations adopt fuel economy standards
- Progress on fuel economy targets is dependent on technology, costs and consumer preferences for vehicle types
- The fuel economy of the light-duty fleet will continue to improve over the *Outlook* period, with substantial gains beyond current policy targets
- Average fuel economy of new cars worldwide will rise from about 30 mpg in 2015 to close to 50 mpg in 2040

U.S. car sales by class evolve

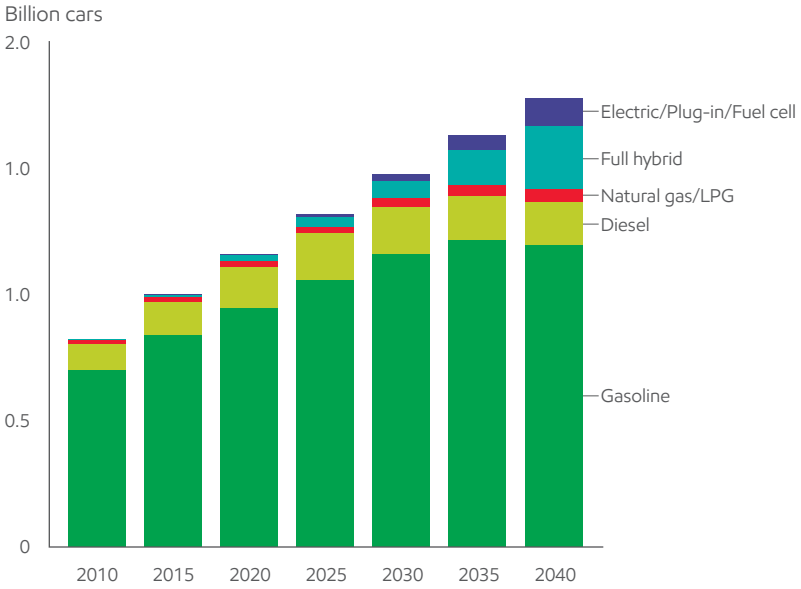


- Over the past 35 years, the share of SUVs in U.S. sales has been growing, reflecting consumer preferences versus small cars
- In the near term, SUVs and pickup trucks will maintain market share; however, post 2020 small cars are likely to gain share versus these categories
- Smaller vehicle options are likely to grow in the SUV and pickup categories
- Falling battery costs will enable small, shorter-range electric cars to exceed more than 10 percent of new car sales in the U.S. by 2040, as high cost differentials begin to narrow versus conventional cars

02 Demand

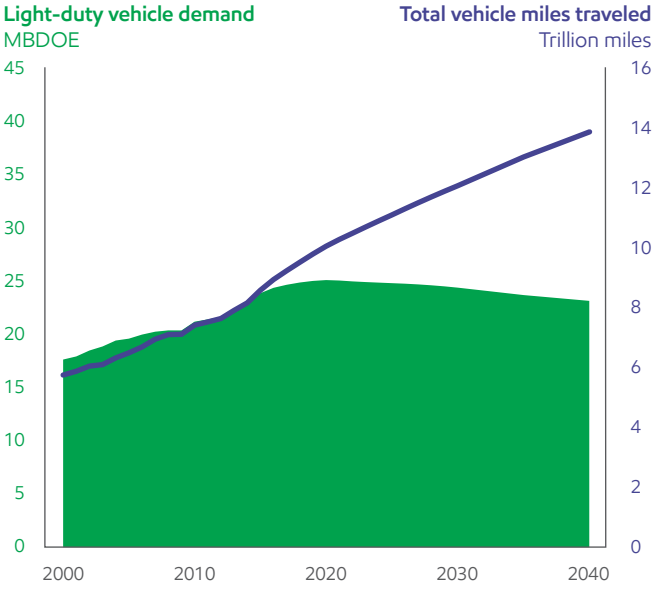
Transportation – projections

Global fleet increases and diversifies



- Driven by increases in personal income and population, the global fleet of cars, SUVs and pickups grows about 80 percent to approximately 1.8 billion vehicles
- Conventional cars (primarily gasoline-powered) will remain the most popular due to their cost, functionality and increasing fuel efficiency
- Full hybrid vehicles reach approximately 15 percent of the fleet, though many hybrid features, such as start-stop engines, penetrate into conventional vehicles
- Electric vehicles penetrate the small to mid-size car segment across the world, and in certain places grow faster with policy support

Fuel economy gains stem demand growth

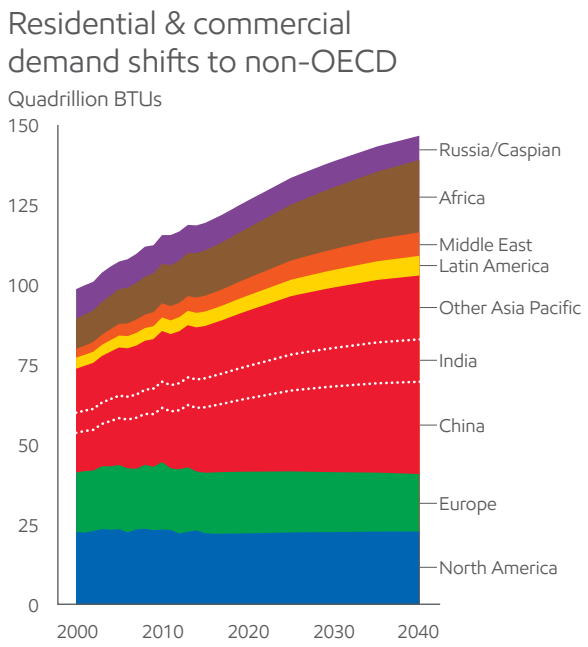


- Improving new-car fuel economy will enable energy demand to peak in the 2020s, even as total miles traveled increases significantly to 2040
- Out to 2040, energy demand decreases in the OECD more than it increases in the non-OECD, driving down global LDV energy demand
- Although energy demand peaks, personal mobility continues to increase globally as total miles traveled by all cars, SUVs and pickups rises to almost 14 trillion in 2040
- About two-thirds of energy savings reflect more efficient internal combustion engines, with the balance resulting from adoption of hybrid or electric vehicles

Residential and commercial

As populations grow and prosperity rises around the world, we will need more energy to power homes, offices, schools, shopping centers, churches and the like. Combined residential and commercial energy demand is projected to rise by about 25 percent by 2040. About 90 percent of this demand growth will be met by electricity. Led by the growing economies of non-OECD nations, average worldwide household electricity use will rise about 30 percent between 2015 and 2040.

Residential and commercial – projections

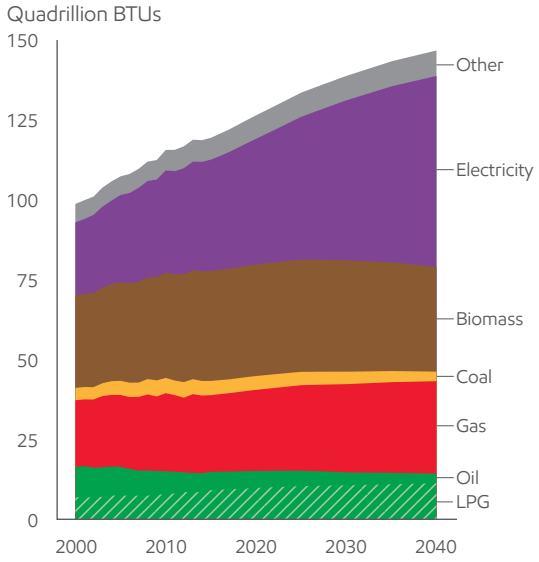


- Growth in households, rising prosperity and expanding commercial activity will spur higher demand for lighting, heat and power in homes and offices
- Residential and commercial energy demand will rise about 25 percent by 2040, consistent with overall population growth
- Essentially all growth will be in non-OECD nations where demand will rise close to 40 percent
- Africa and China will each account for about 30 percent of the increase in demand

02 Demand

Residential and commercial – projections

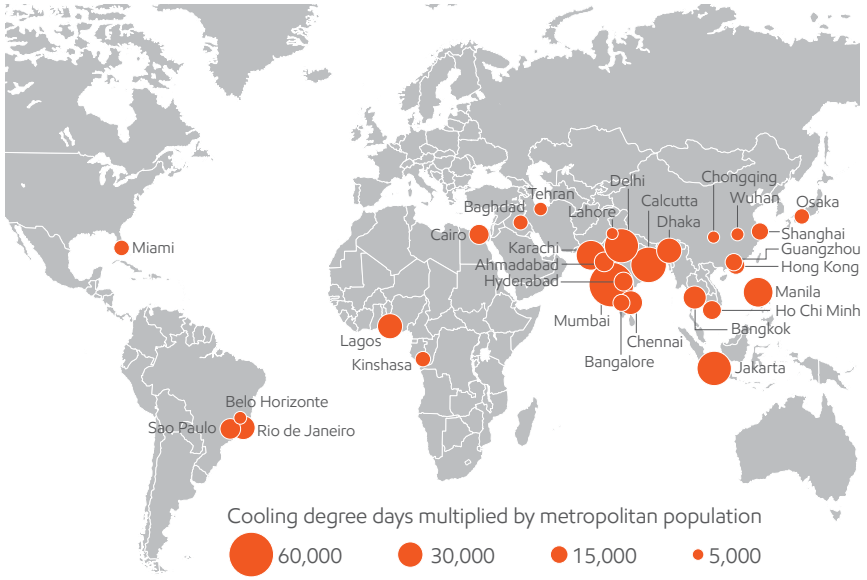
Residential/Commercial electricity demand surges



- Energy shifts reflect rising living standards and increasing urbanization through 2040
- Electricity demand rises 70 percent, accounting for 90 percent of demand growth from 2015-2040, and reaching a share of 40 percent in 2040
- Natural gas use grows about 20 percent, keeping its share around 20 percent through 2040
- Biomass demand peaks, aided by growing access to modern energy in non-OECD nations, with its share declining to about 20 percent in 2040

Rising prosperity promotes air conditioning

Potential air conditioning requirement for 30 major metropolitan areas

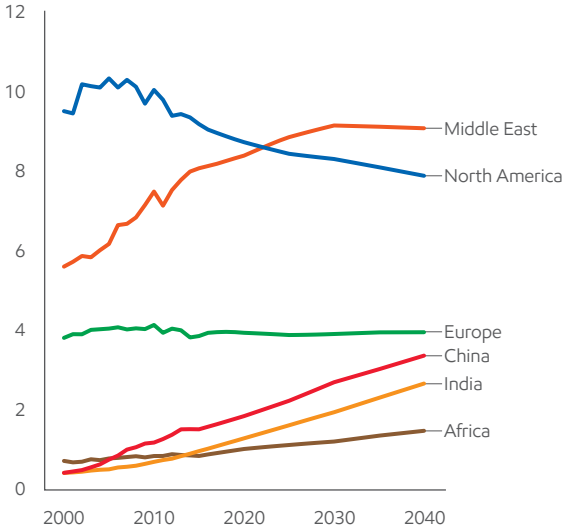


Source: Sivak

- Cooling degree days multiplied by population is indicative of an urban area's potential need for air conditioning
- Nearly all of the highest ranking metropolitan areas by cooling degree days are in the developing world
- Demand for air conditioning typically increases with rising incomes and urbanization
- 5 of the 15 warmest, most densely populated cities are in India
- Smart design, insulation and temperature controls can greatly improve building energy efficiency and comfort

Household electricity up in non-OECD

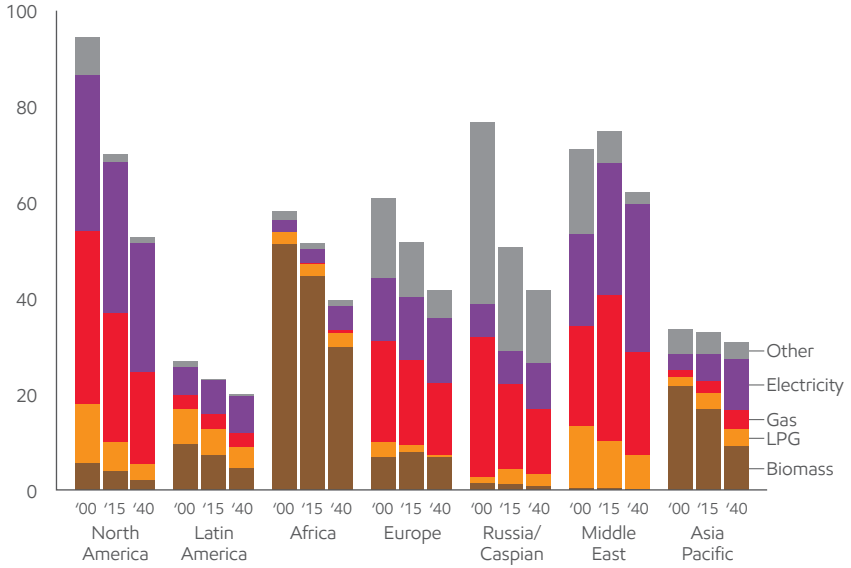
Megawatt hours per household per year



- Residential electricity use will rise about 75 percent by 2040, driven by a nearly 150 percent increase in non-OECD nations
- Electricity use per household will rise about 30 percent globally, as household use in non-OECD countries rises about 70 percent
- Electricity use per household in OECD nations will be flat-to-down as efficiencies help limit electricity requirements
- Residential electricity use in Africa and India is likely to increase about 250 percent though both areas will continue to lag in terms of electricity use per household

Residential energy use reflects efficiency gains

Million BTUs per household per year



- Household energy use continues to improve, reflecting more efficient buildings and appliances
- Energy use evolves to favor use of electricity
- People in Africa and Asia Pacific still rely on biomass products to a large degree; about 2.7 billion people worldwide still use biomass for cooking and about 1.2 billion people still lack access to electricity

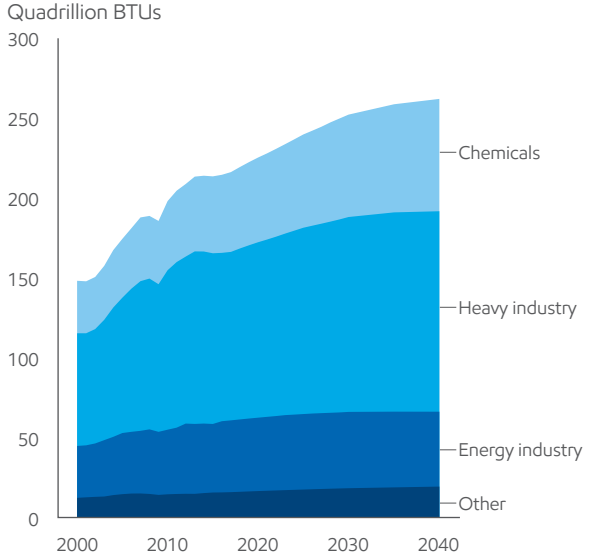
02 Demand

Industrial

Almost half of the world's energy use is dedicated to industrial activity, including half of global electricity demand. Those statistics often get lost in discussions about energy that focus on direct consumption at the individual or household level – the miles per gallon a car gets, for instance, or the size of one's utility bill. What this "unseen" energy consumption reveals is the critical importance of manufacturing, infrastructure and agriculture to the modern economy. That importance will continue as industrial energy demand rises by about 25 percent by 2040, led by growth in the chemicals sector.

Industrial – projections

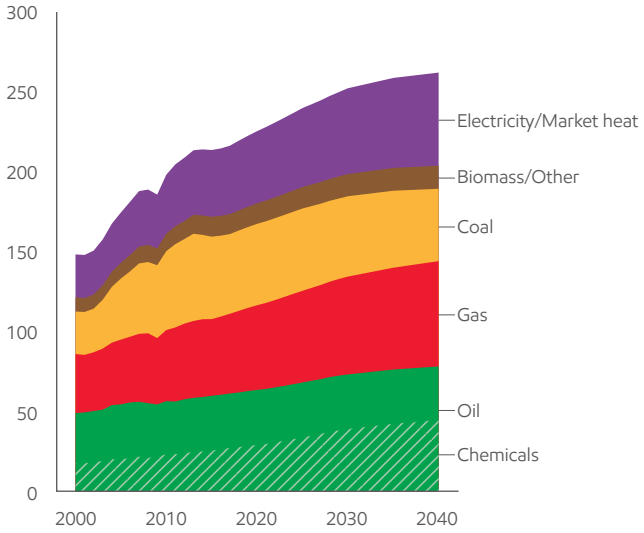
Industrial demand fuels economic activity



- Industrial activity spurs economic growth while meeting consumer demand for buildings, roads, durable goods, etc.
- Almost half of the world's energy is dedicated to industry
- Industrial energy demand will rise by about 25 percent 2015-2040; the chemicals sector sees the highest growth
- Efficiency improvements in industrial processes moderate energy demand growth
- Energy industry demand is linked to trends in production of oil, gas and coal
- Other (agriculture, asphalt, lubricants) grows modestly

Industrial demand reflects diverse energy mix

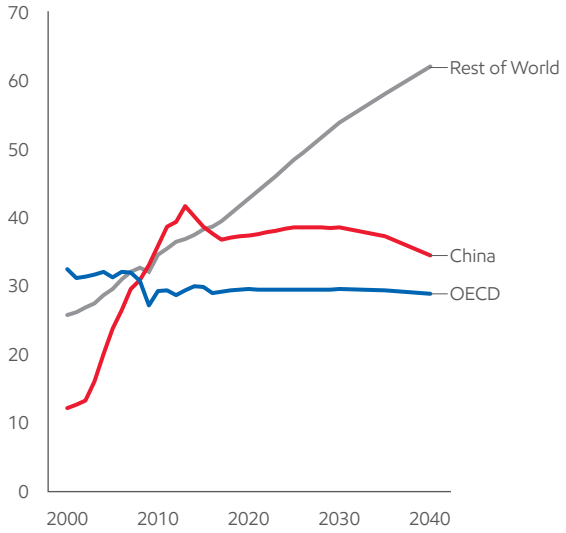
Quadrillion BTUs



- Industry uses energy as a chemical feedstock and fuel to produce heat, drive motors, power robots, etc.
- Natural gas and electricity/market heat each rise by about 40 percent 2015-2040
- Industrial coal use is expected to plateau then gradually decline
- Oil declines as a fuel but grows as a building block for chemicals, roads and lubricants

Heavy industry demand shifts regionally

Quadrillion BTUs

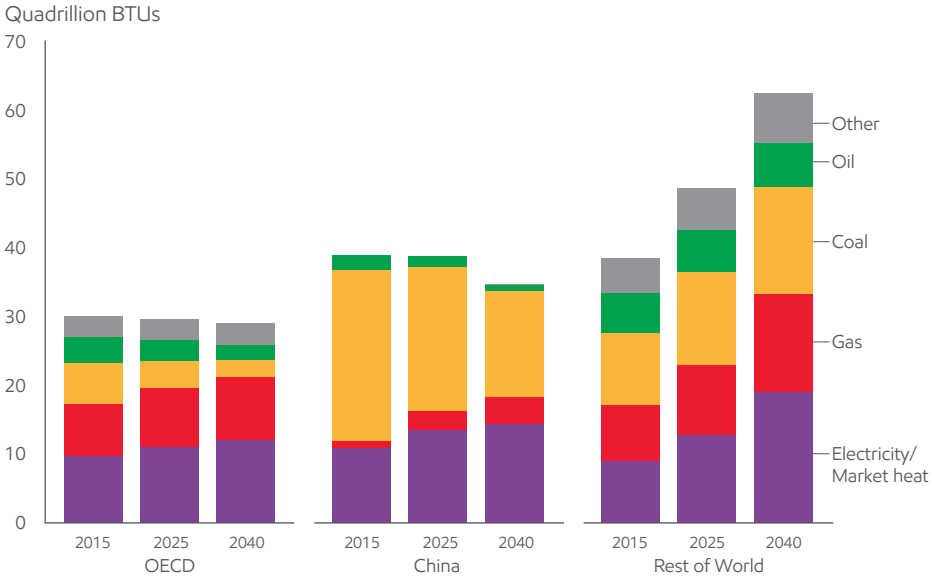


- After a decade of rapid growth, China's heavy industry energy demand (for steel, cement, etc.) contracts
- China's demand begins to parallel the OECD's path as its economy shifts toward higher value manufacturing and services
- Growth in heavy industry moves to other emerging markets, led by India, Africa and Southeast Asia
- Globally, heavy industry energy demand grows around 15 percent 2015-2040

02 Demand

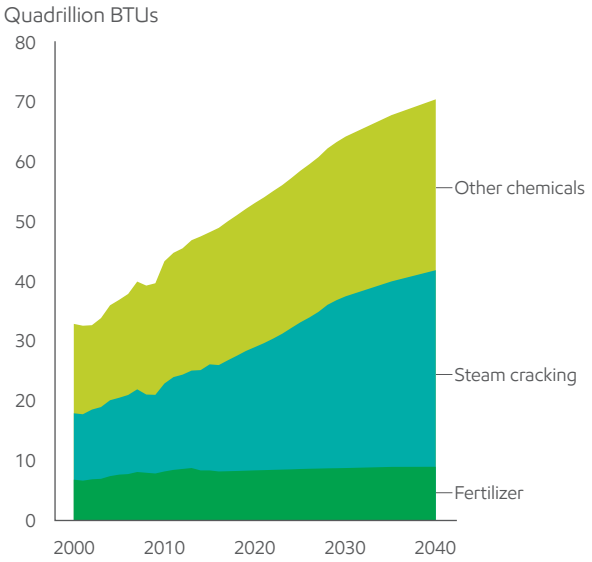
Industrial – projections

Heavy industry energy mix shifts to electricity and gas



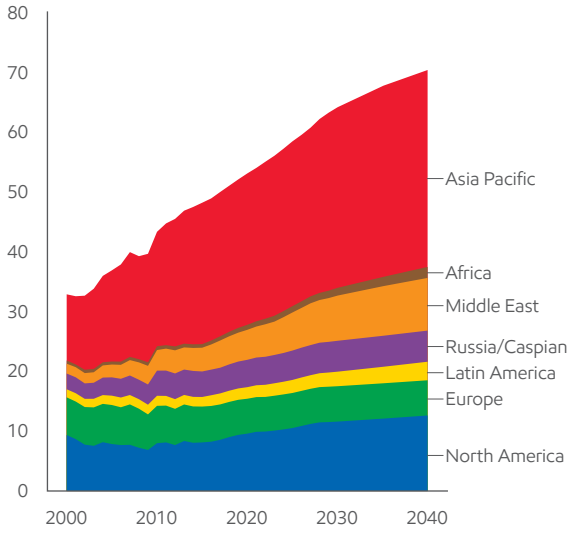
- Heavy industry's energy mix will shift toward lower direct emissions energy sources
- Electricity and gas demand grow three times as fast as total energy
- China's heavy industry coal demand drops by almost 40 percent 2015-2040
- Coal continues to play a role in steel and cement manufacturing

Chemicals demand rises rapidly



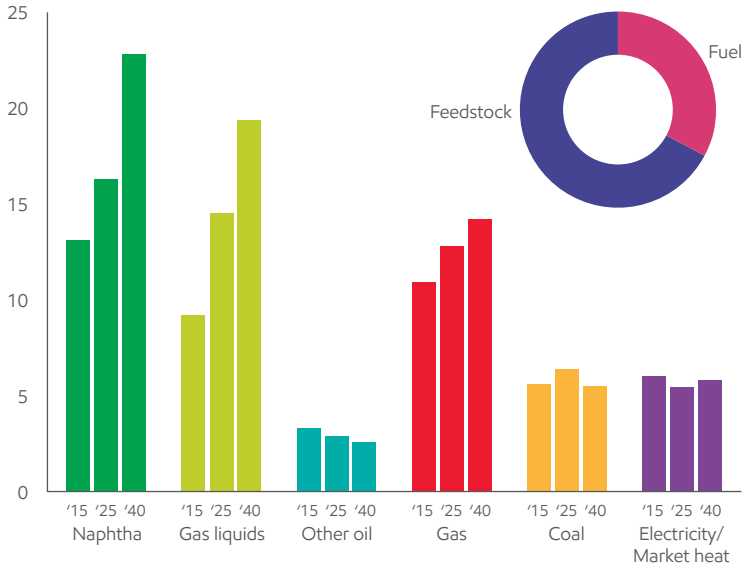
- Demand for chemical products outpaces GDP in many emerging markets
- Rising prosperity propels demand for fertilizer, plastics and other chemical products
- Steam cracking transforms hydrocarbon molecules into the basic building blocks for plastic products used in homes, health care, cars and commerce
- The chemicals sector users energy in two ways: as a fuel and as a feedstock
- Chemicals energy demand grows by 45 percent 2015-2040

Chemicals demand expands with rising incomes



- Chemicals production, and the associated energy demand, migrates to regions with competitive advantages like low-cost feedstocks or burgeoning local demand
- Developing Asia Pacific sees the largest growth driven by population size and robust GDP growth
- Middle East chemicals energy demand more than doubles
- Access to low-cost natural gas liquids (NGL) feedstocks triggers U.S. chemicals expansion
- Chemicals produced in these key regions are traded globally as intermediate or final products

Chemicals demand favors oil and gas



- Feedstock comprises about two-thirds of chemicals energy demand, fuel about one-third
- Since 2000, gas liquids use has grown by two-thirds as unconventional oil and gas have expanded supplies, particularly in the U.S.
- Naphtha and gas liquids are expected to see similar volume growth and together account for about 60 percent of demand by 2040
- Gas is a feedstock for fertilizers and other chemicals, and is also used as a fuel
- China uses coal as a fuel and an alternative chemical feedstock

02 Demand

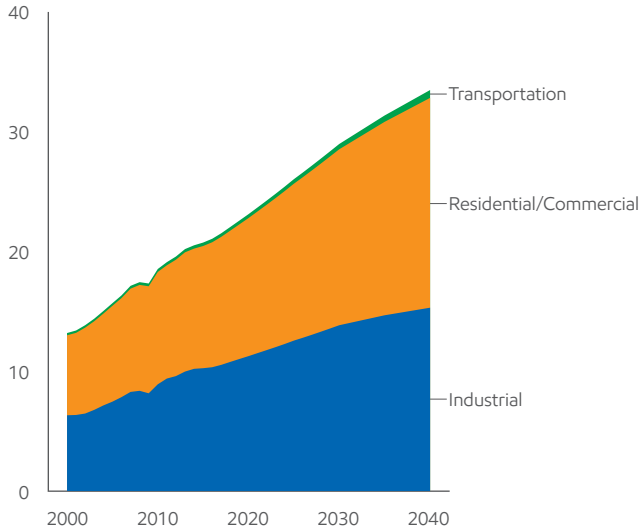
Electricity and power generation

Economic growth and development worldwide will increasingly be powered by electricity, notes the International Energy Agency (IEA). Global electricity demand will rise by 60 percent between 2015 and 2040, accounting for 55 percent of the world's energy demand growth. These facts offer challenges alongside opportunities, and will alter the global energy landscape. As electricity use rises, the types of energy used to generate it will diversify, globally and regionally, led by natural gas, nuclear and renewables.

Electricity and power generation – projections

Electricity demand grows in all sectors

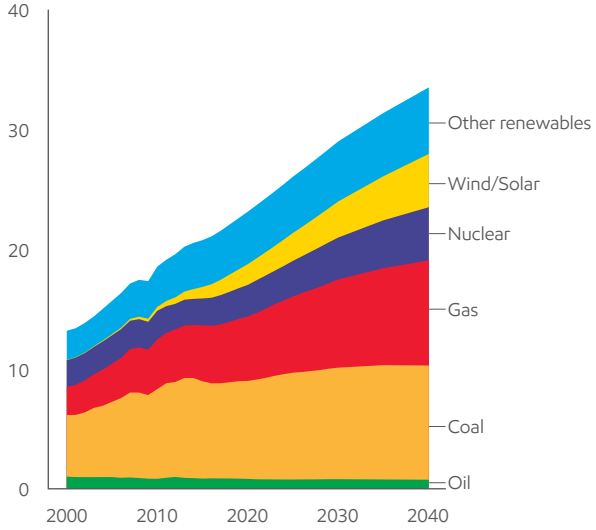
Thousand TWh (net delivered)



- Global electricity demand rises by 60 percent 2015-2040
- Residential and commercial electricity demand seen rising by 70 percent from 2015-2040; industrial demand grows by 50 percent
- Industrial electricity demand growth moderates post-2030 as China's economy shifts from heavy industry to services and lighter manufacturing
- Transportation demand more than doubles 2015-2040, but makes up only 2 percent of total use

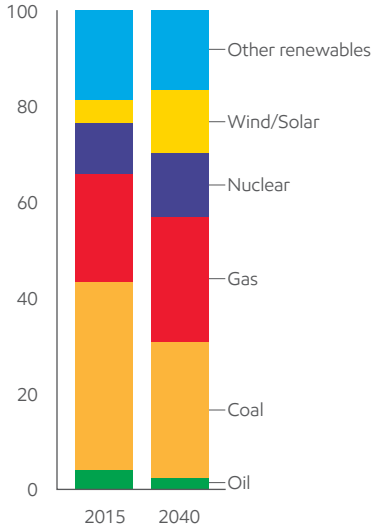
Electricity supplies reflect diverse sources

Thousand TWh (net delivered)



Electricity supply mix shifts

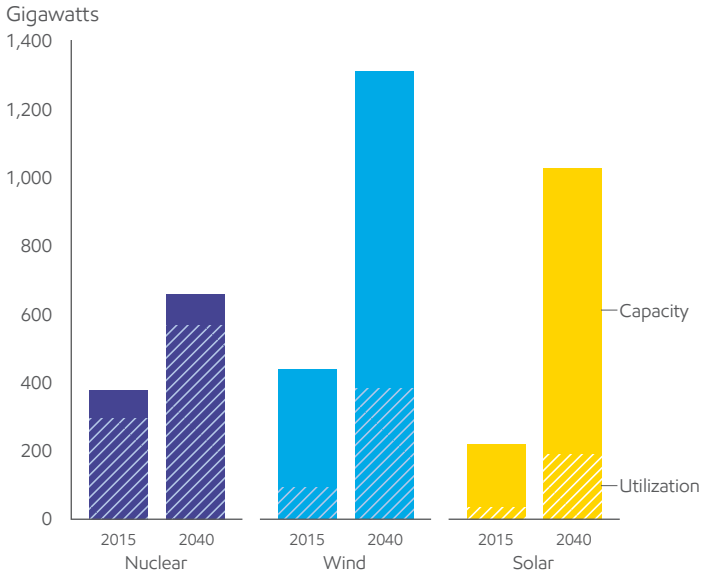
Percent share TWh (net delivered)



- World shifts to less carbon-intensive energy for electricity generation, led by gas, renewables (wind, solar) and nuclear
- Electricity supplies from coal plateau around 2035 as natural gas, nuclear, wind and solar continue to grow
- Coal provides less than 30 percent of world's electricity in 2040, versus about 40 percent in 2015
- Wind and solar electricity supplies grow about 360 percent, approaching 15 percent of global electricity by 2040
- Renewables growth supported by policies to reduce CO_2 emissions

Electricity and power generation – projections

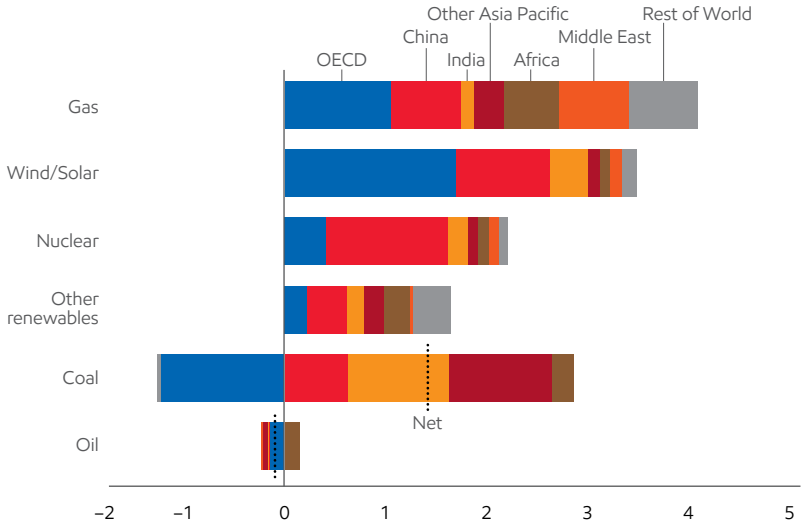
Global nuclear, wind, solar capacity surges



- Global nuclear, wind and solar see significant capacity additions
- Nuclear capacity grows by 75 percent 2015-2040, led by China
- Although utilization improves over time, intermittency limits worldwide wind and solar capacity utilization to nearly 30 percent and 20 percent, respectively
- Wind and solar together provide similar electricity as nuclear in 2040

Electricity sources shift regionally

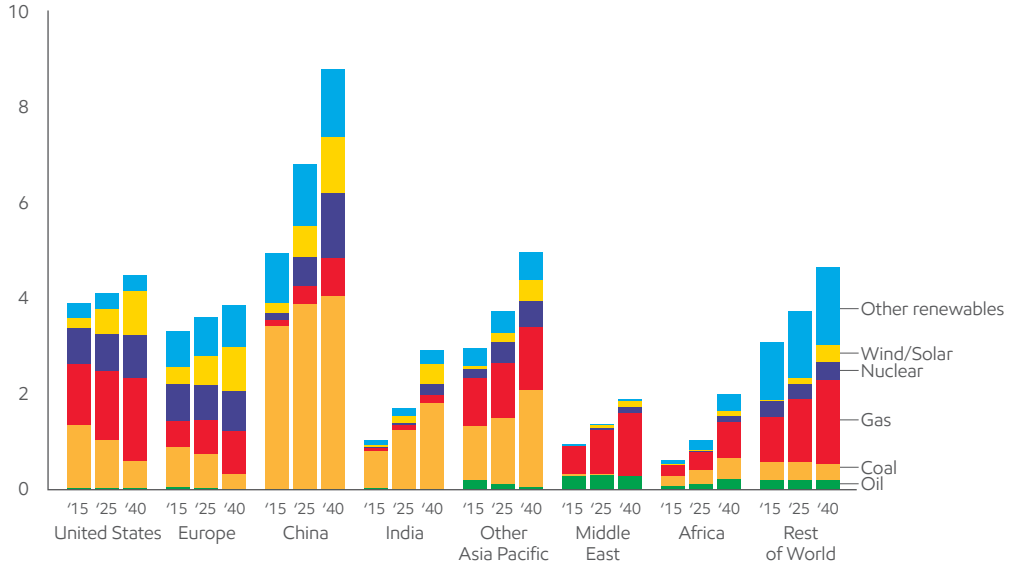
Thousand TWh, 2015–2040



- Sources for electricity generation change from 2015-2040, and the shifts vary regionally
- Gas leads growth as a source for electricity generation, with growing demand in OECD, China, and in countries where domestically available
- Wind, solar grow significantly, with about three-quarters of the growth from OECD and China; other renewables, particularly hydro, grow across all regions
- Nuclear grows, with more than 50 percent of the growth coming from China
- Coal-fired generation shrinks in OECD, but is more than offset by growth in many countries in Asia Pacific to support their rapidly expanding economies
- Global generation from oil shrinks, with growth seen only in Africa

Electricity generation by region highlights diversity

Net delivered electricity, thousand TWh



- 60 percent of the rise in electricity demand will come from Asia Pacific
- Mix of electricity generation sources will vary significantly by region
- The U.S. and Europe lead shift from coal, with significant gains in gas, wind and solar
- China's coal share of power generation falls; looks to nuclear, renewables and gas to meet electricity growth
- Middle East, Africa and Rest of World draw on gas when domestically available
- Coal-fired electricity use grows in Asia Pacific; India's use of coal for electricity more than doubles from 2015-2040

Learn more

Interested in knowing more about how electricity powers economic growth and development?

Visit us at:
exxonmobil.com/energyoutlook
and see our infographic
"Why the world needs more watts"

03

Emissions

The challenge of providing the energy supplies that power the global economy is coupled with the need to do so in ways that reduce energy-related greenhouse gas emissions and mitigate the risk of climate change.

The next quarter century will witness a number of developments driven by technology advances and policy decisions that will substantially influence the world's greenhouse gas emissions profile.

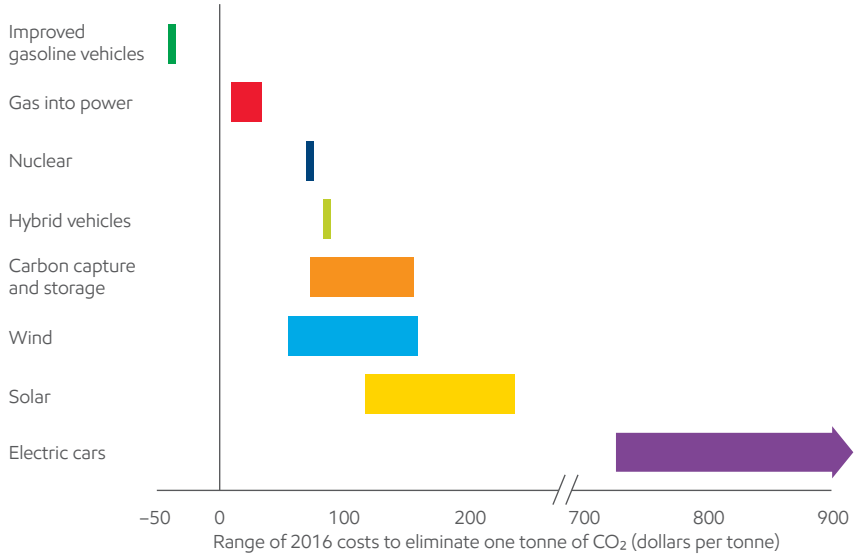
As policymakers develop mechanisms to meet the goals set forth in the 2015 Paris climate agreement, the research and development efforts of the world's scientists, engineers and entrepreneurs will propel energy's evolution. Advances will promote not only new energy supply options and greater energy efficiency, but also emerging opportunities for technologies like carbon capture and storage (CCS).

Between 2015 and 2040, innovation in the transportation sector will deliver significant increases in fuel economy for cars and commercial vehicles. We will also see a shift in the types of energy used for electricity generation, led by natural gas and renewables. Coal's share of global power generation has been falling recently and will continue to drop, with gains being made by less carbon-intensive energy sources such as natural gas, nuclear, wind and solar.

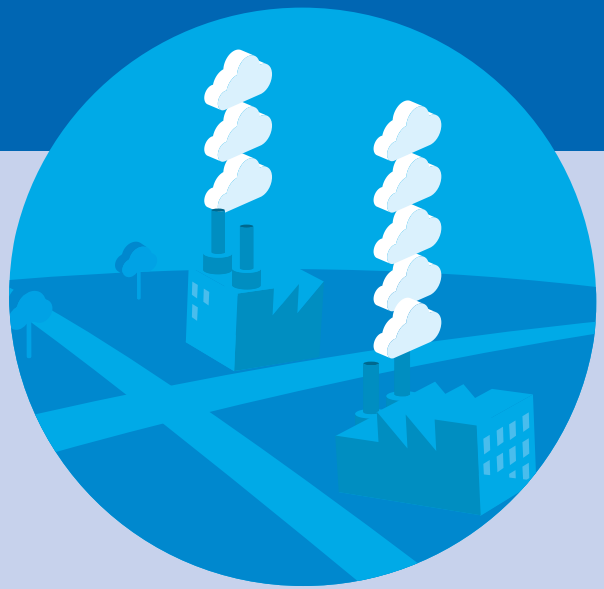
The initial result will be a continued slowdown in the growth of global carbon dioxide emissions. Global energy-related CO_2 emissions are likely to peak during the 2030s and begin to decline – all the more remarkable considering the fact that global GDP is expected to double in the period from 2015 to 2040.

Emissions – projections

Average U.S. CO_2 abatement costs clarify best options



- Many options exist to reduce CO_2 emissions, each with different costs as of 2016
- Improving fuel economy of conventional vehicles is the lowest cost option
- Switching to natural gas (vs. coal) in power generation also offers low-cost results
- Solar energy is about double the cost of wind for curbing emissions (vs. coal) in U.S.
- Electric cars are a high-cost option, upward of $700/tonne of CO_2 abated



$$CO_2 \text{ abatement cost} = \frac{\text{Change in capital \& operating costs}}{\text{Change in } CO_2 \text{ emissions}}$$

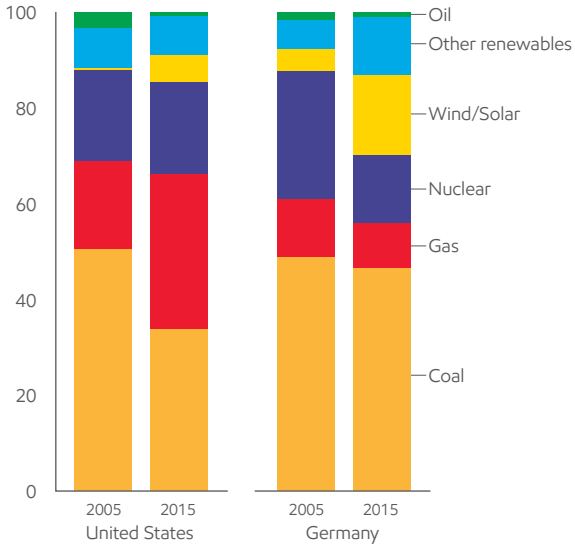
- *Progress on energy and climate goals requires practical solutions that are reliable, affordable and cost-effective*
- *Many opportunities exist to reduce CO_2 emissions, and since the costs vary widely and can be substantial, societies should adopt policies targeting CO_2 emissions that will minimize the related costs that are ultimately borne by consumers and taxpayers*
- *The best policy options to achieve that goal will be market-based, predictable, transparent and globally applicable to promote innovation and technology breakthroughs to address climate change risks*
- *Properly designed market-based policies, such as a revenue-neutral carbon tax, are most likely to fully capitalize on the ability and interests of individuals and businesses across society to find, develop and pursue the most cost-effective options to reduce emissions*
- *According to the U.S. Congressional Budget Office, putting a transparent and reliable price on CO_2 emissions would be society's most cost-effective approach to reduce emissions*

03 Emissions

Emissions – projections

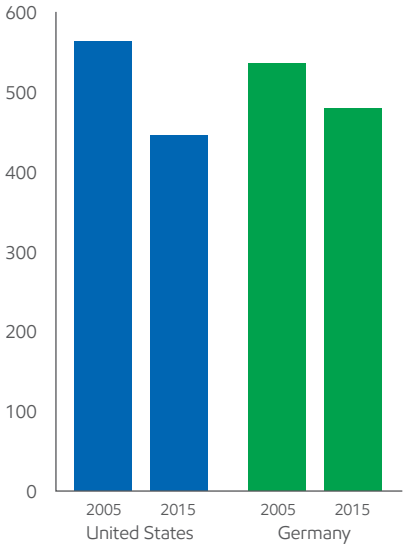
Comparison of the U.S. and Germany

Share of electricity generation



CO_2 intensity gains favor the U.S.

Grams CO_2/kWh generation



Source: EIA, UBA

- The U.S. and Germany illustrate different options available to reduce CO_2 emissions
- A shift in the U.S. has favored natural gas, along with growth in wind and solar
- In contrast, Germany targeted greater use of wind and solar while phasing out nuclear
- As a result, from 2005 to 2015, the CO_2 intensity of power generation fell more than 20 percent in the U.S., or more than twice the improvement shown in Germany, where it fell about 10 percent

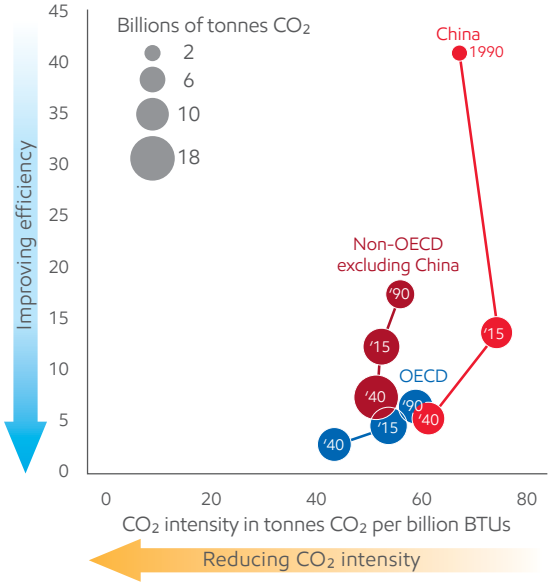
Learn more

Want to learn more about how technology is helping to reduce greenhouse gas emissions?

Visit us at:
exxonmobil.com/energyoutlook and see our infographic "Technology takes on CO_2"

Restraining energy-related CO_2 emissions

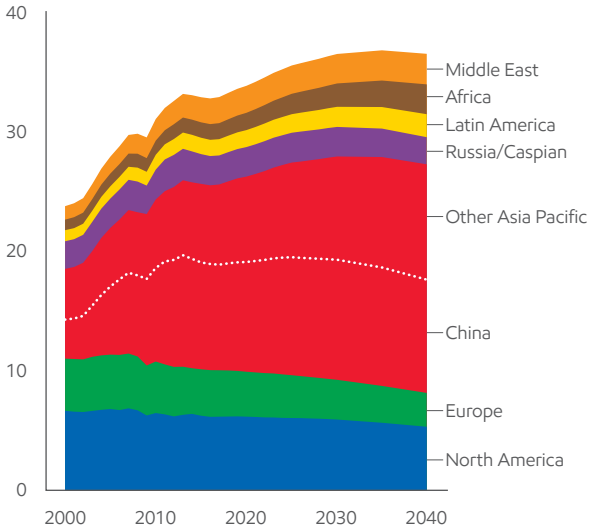
Thousand BTUs per dollar of GDP, in 2010 dollars



- Improving efficiency and decreasing the CO_2 intensity of energy use help stem emissions as populations and GDP grow
- China's GDP rose about 1,000 percent from 1990-2015 but energy efficiency gains kept a rise in CO_2 emissions to about 300 percent; efficiency gains and lower CO_2 intensity will help emissions peak around 2030
- OECD nations improved efficiency and CO_2 intensity from 1990 to 2015, keeping emissions relatively flat; accelerating gains will help reduce emissions 20 percent by 2040
- CO_2 emissions in other non-OECD nations rose about 50 percent from 1990 to 2015, and are likely to increase 50 percent by 2040 despite a 40 percent gain in efficiency across these emerging economies

Energy-related CO_2 emissions peak

Billion tonnes



- Global CO_2 emissions rose close to 40 percent from 2000 to 2015, despite a modest decline in OECD nations
- From 2015 to 2040, global CO_2 emissions are likely to peak and gradually decline, ending about 10 percent above the level in 2015
- Emissions are declining in the OECD; will drop about 20 percent from 2015-2040
- China contributed about 60 percent of the growth in emissions from 2000-2015; its emissions peak about 2030, higher than North America and Europe combined
- Emissions outside North America, Europe and China rise about 35 percent from 2015-2040, with the share of global emissions reaching 50 percent by 2040

04

Supply

What resources will be available to meet the world's increasing demand for more energy?

Recent technology advancements have provided an abundance of supply and unprecedented range of energy choices – from the oil and natural gas in America's shale regions to the deepwater fields off the African coast; from new nuclear reactors in China to wind turbines and solar arrays in nations around the world.

The global energy supply mix will shift over the next two-and-a-half decades. Society's push for lower-emission energy sources will drive substantial increases for nuclear power as well as renewables such as wind and solar. By 2040 nuclear and all renewables will be approaching 25 percent of global energy supplies.

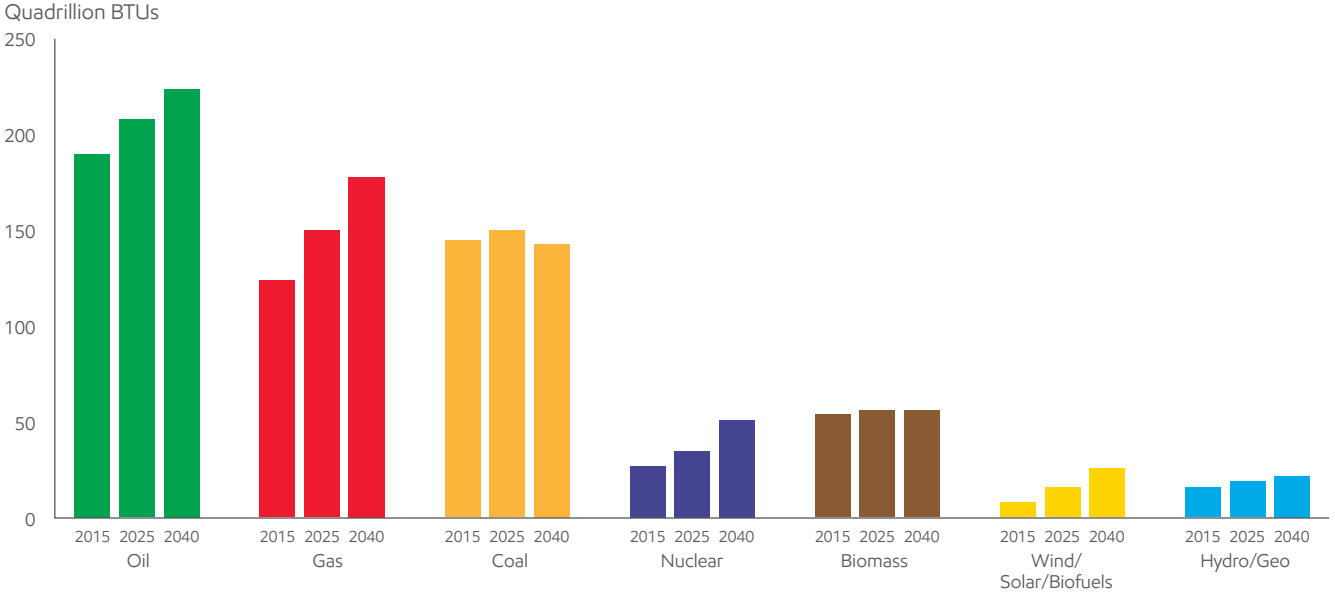
Oil will remain an essential energy source for transportation and chemicals production. Natural gas, increasingly used for power generation as utilities look to switch to lower-emissions fuels, will expand its share of the energy mix. Gas will overtake coal as the world's second-largest fuel within a decade.

The world has been undergoing an energy supply revolution in recent years, with significant oil and natural gas production increases from American shale fields rewriting the narrative of scarcity and limits that has prevailed since the 1970s. North America, which has been an oil importer for decades, is on pace to become a net exporter of oil in just a few years.

These advances have stimulated a new "age of abundance" in energy supplies, which is good news for billions of people seeking to advance their standards of living.

Supply – projections

Energy supply evolves to meet diverse demand



- Oil remains the primary fuel, essential in transportation and chemicals
- Gas demand rises the most, largely to help meet increasing needs for electricity and to support rising industrial demand
- Oil and gas continue to supply about 55 percent of the world's energy needs through 2040
- Coal's share falls as the OECD and China turn to lower emission fuels
- Nuclear demand almost doubles 2015-2040 led by China
- Wind, solar and biofuels average combined growth of about 5 percent per year, reaching about 4 percent of global energy demand

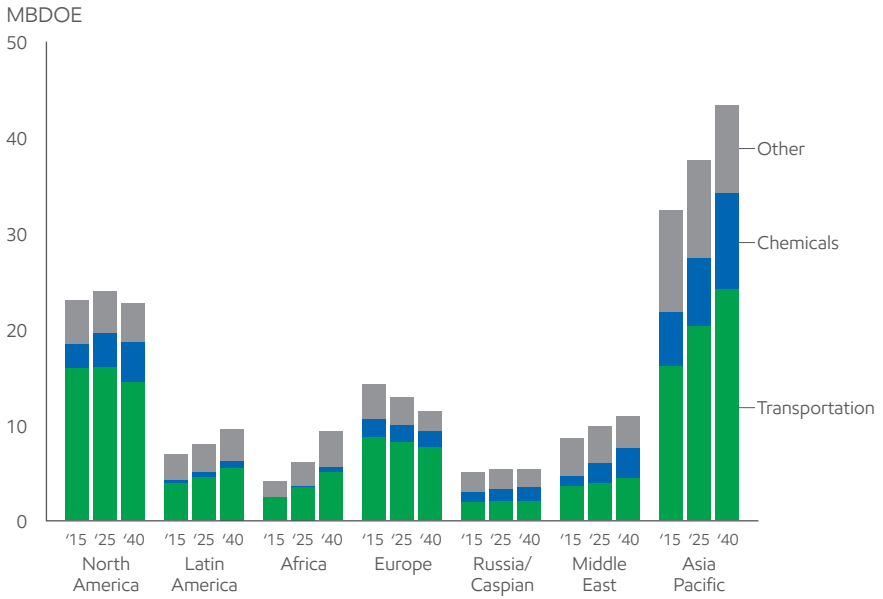
04 Supply

Liquids

The abundance of supply and a broad range of energy choices have been enabled by technological innovation. Supplies of oil and other liquid fuels are projected to grow 20 percent over the next quarter century, essentially matching expected growth in demand. The gains largely will come from technology-enabled sources, such as tight oil, deepwater and oil sands. As energy markets shift, North America will become a net exporter as tight oil and NGL production grows.

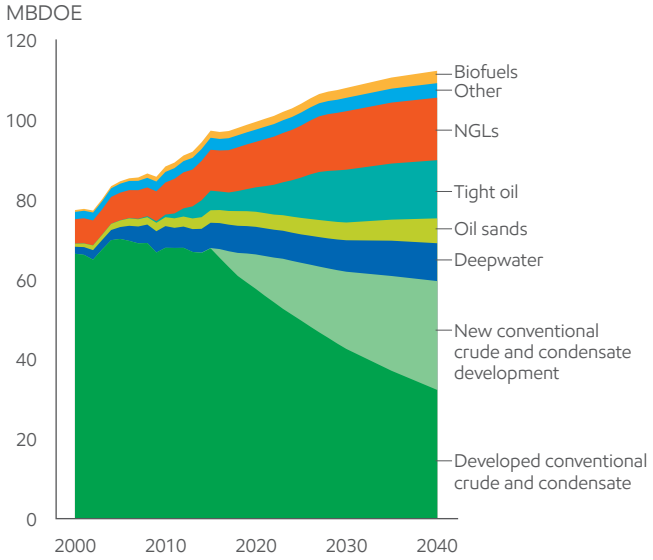
Liquids – projections

Liquids demand dominated by transportation and chemicals



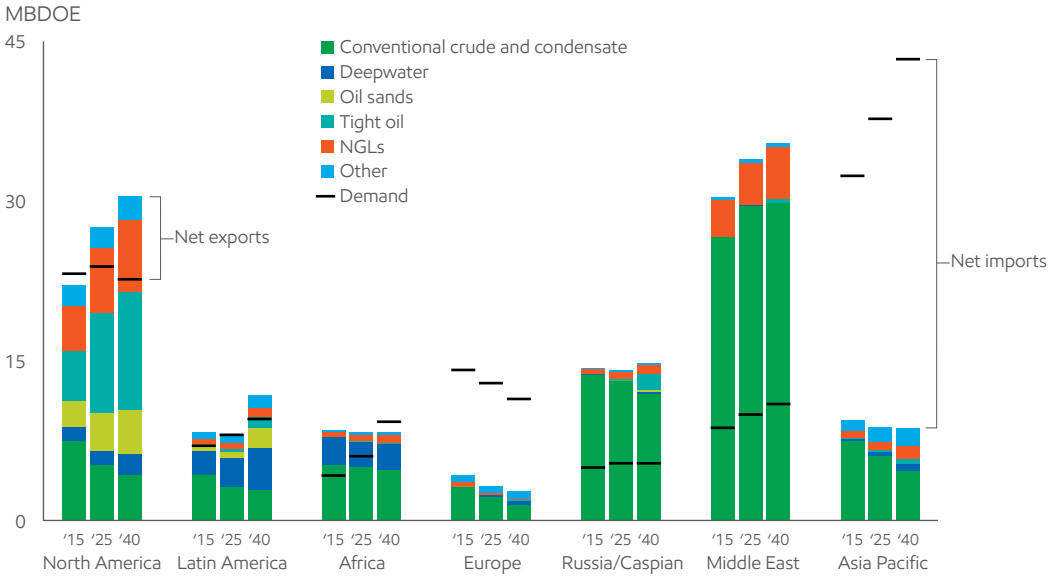
- Global liquids demand grows about 20 percent from 2015 to 2040
- Demand grows in commercial transportation and chemicals
- North America and Europe liquids demand declines with advances in light-duty vehicle efficiency
- Africa has the fastest growth rates as emerging economies advance
- Asia Pacific accounts for about 60 percent of the increase in global liquids demand to 2040, and surpasses the combined liquids demand of North America and Europe around 2025

Liquids supply highlights technology gains



- Global liquids production rises to meet demand growth
- Technology-enabled NGLs, tight oil, deepwater and oil sands see strong gains
- Tight oil plus NGLs exceed 25 percent of global liquids supply in 2040
- Continued investment in conventional oil is needed to mitigate decline in existing fields and meet demand for liquid fuels

Liquids supply highlights regional diversity

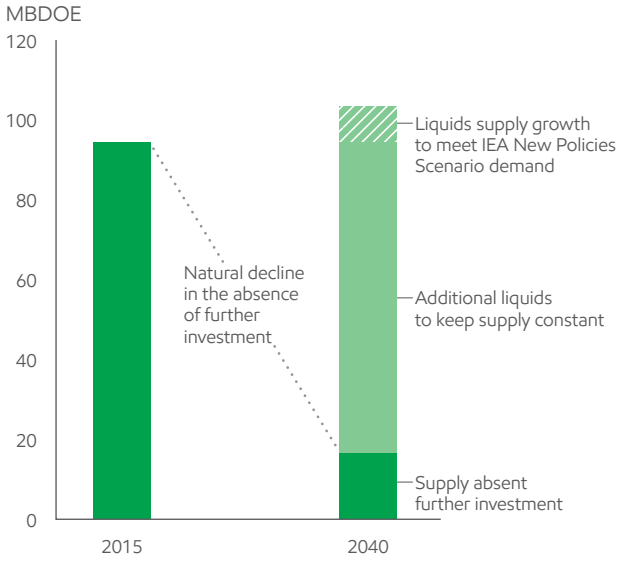


- Liquids trade balances shift as supply and demand evolve
- North America swings to a net exporter as shale growth continues
- Latin America exports increase from added deepwater, oil sands and tight oil supplies
- Middle East, Russia/Caspian remain major oil exporters to 2040, but Africa shifts to an importer
- Europe remains a net oil importer as its demand and production decline
- Asia Pacific imports increase to 80 percent of oil demand in 2040

04 Supply

Liquids – projections

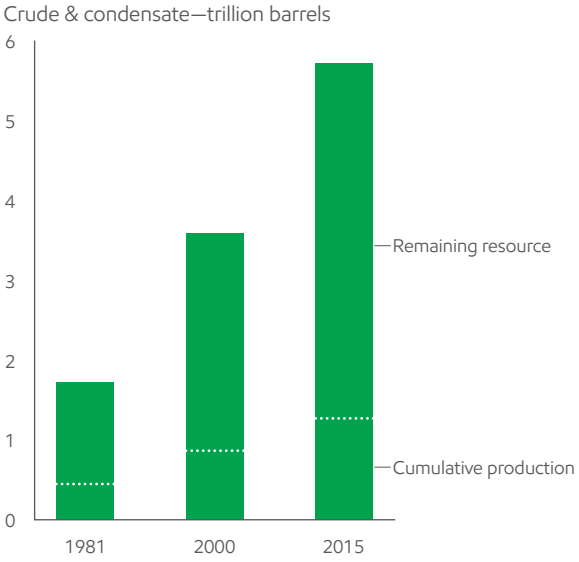
Liquids demand & supply warrant investment



Source: IEA, excludes biofuels

- Upward of $450 billion a year of upstream oil investment is needed to meet demand
- Without further investment, liquids supply would decline steeply
- Over 80 percent of new liquids supply needed to offset natural decline

Technology expands recoverable resources



Source: USGS, IEA

- Global oil resources are abundant
- Less than one-quarter of global oil resources have been produced
- Remaining oil resources can provide 150 years of supply at current demand
- Oil resource estimates keep rising as technology advances
- Technology has added tight oil, deepwater and oil sands resources

Natural gas

As technology unlocks resources previously considered too difficult or costly to produce, the prominence of natural gas in the global energy mix will continue to grow over the period from 2015 to 2040. Total worldwide gas demand is projected to grow by about 45 percent, with growth seen in every sector, particularly power generation. Natural gas production from North America will continue to grow, helping establish the region as a natural gas exporter.

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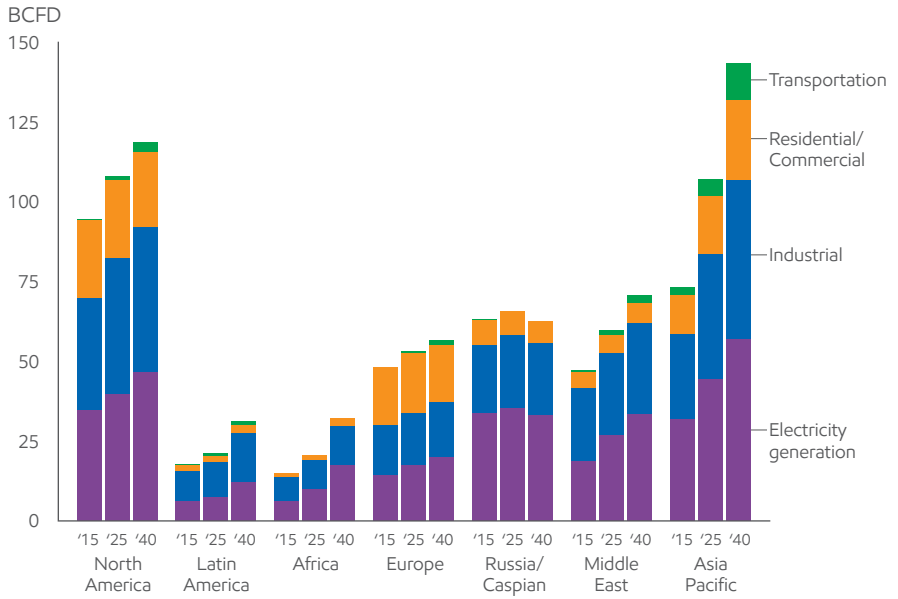
Natural gas – projections

Regional gas demand highlights growth & end-use versatility

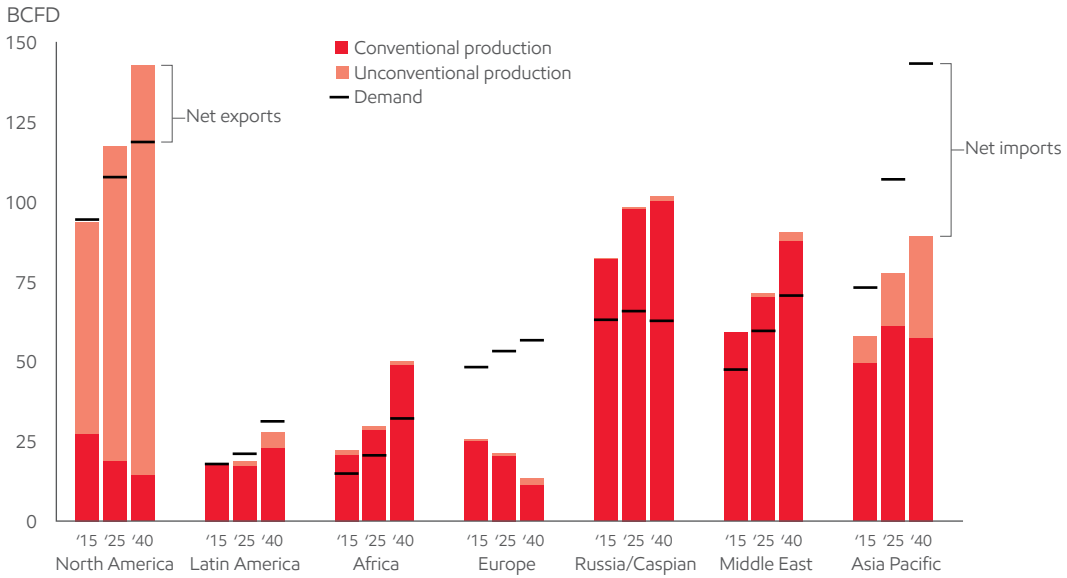


- Global gas demand grows by about 45 percent from 2015 to 2040
- Gas demand grows in all major sectors led by electricity generation
- North America shows strong growth as energy choices shift to lower carbon fuels
- Africa gas demand more than doubles as local supplies increase and economies develop
- Asia Pacific gas demand rises the most accounting for 45 percent of global growth

04 Supply

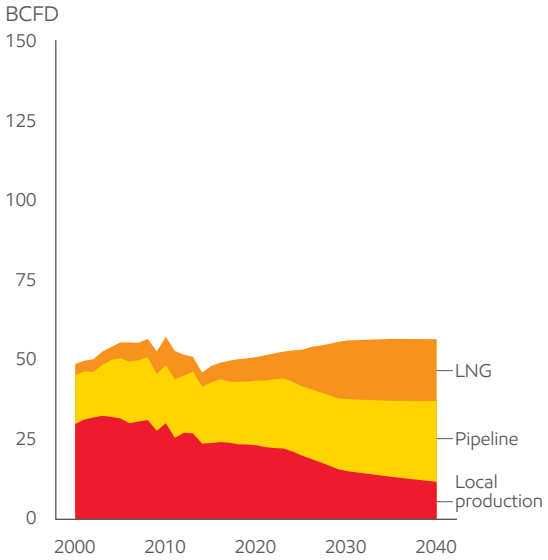
Natural gas – projections

Gas supply highlights regional diversity

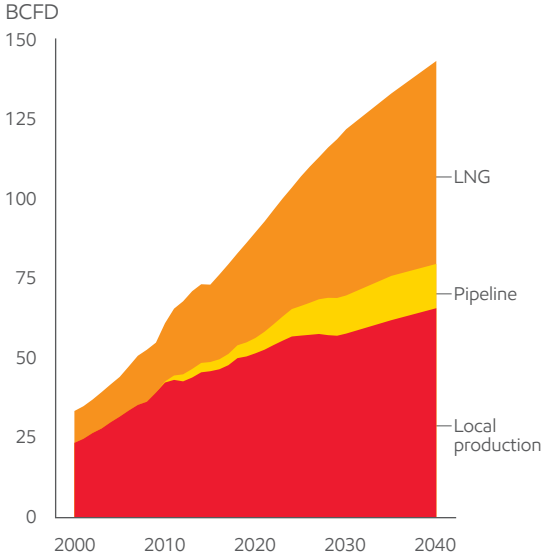


- Gas trade balances shift as supply and demand evolve
- North America becomes a natural gas exporter as unconventional production grows
- Russia/Caspian expands lead as top gas exporter
- Asia Pacific gas production and imports grow to meet rapidly rising demand
- Asia Pacific becomes the largest importer as gas demand doubles by 2040
- By 2040, unconventional gas will account for about one-third of gas production

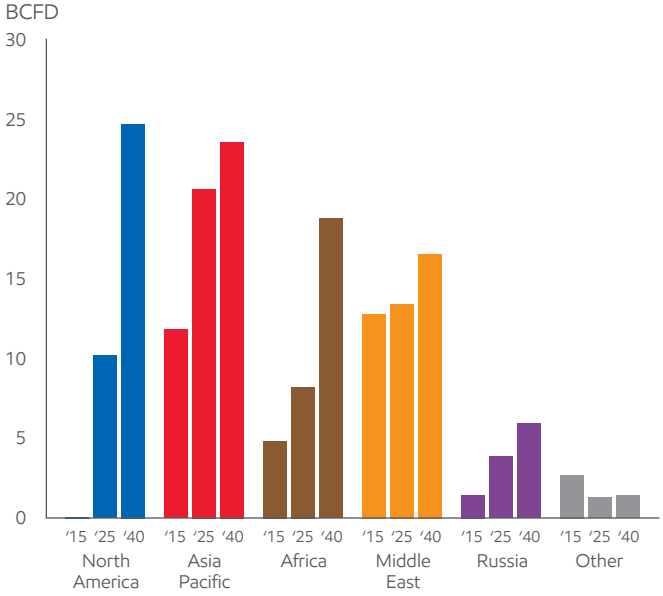
Europe gas imports to grow



Asia Pacific demand drives LNG trade



LNG exports expand and diversify



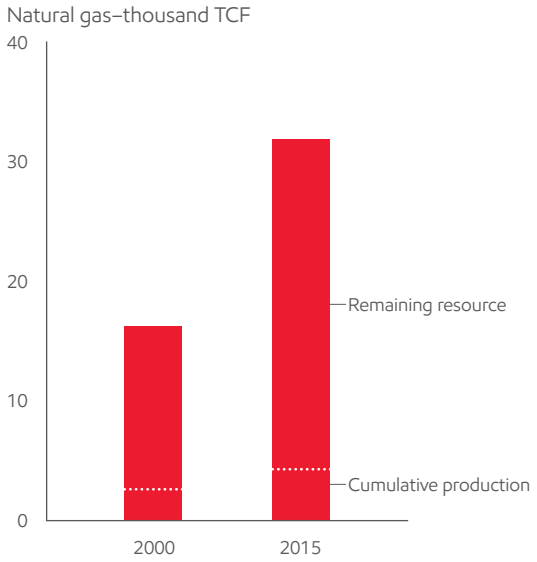
- Europe and Asia Pacific account for about 90 percent of global imports
- Europe liquefied natural gas (LNG) and pipeline imports rise to offset production decline
- Asia Pacific accounts for over two-thirds of global LNG growth
- Asia Pacific LNG is partly sourced from within the region
- Global LNG trade rises more than 2.5 times from 2015 to 2040

- LNG export supplies diversify as demand grows
- Significant new exports expected from the United States, Canada, Australia and East Africa
- North America becomes the largest LNG exporter from growth in unconventional gas production
- LNG will remain highly competitive due to abundant gas resources and many aspiring exporters
- Low-cost LNG supply sources will be advantaged in the marketplace

04 Supply

Natural gas – projections

Technology expands recoverable resources



Source: USGS, IEA

- Global natural gas resources are abundant
- Less than 15 percent of global gas resources have been produced
- Remaining gas resources can provide more than 200 years of supply at current demand
- Gas resource estimates keep rising as technology unlocks resources previously considered too difficult or costly to produce
- Over 40 percent of the remaining gas resource is from unconventional sources such as tight and shale gas

Learn more

Want to learn more about the important role of natural gas?

Visit us at:
exxonmobil.com/energyoutlook and see our infographic "Natural gas is an energy game-changer"

05

Energy matters

With more people using energy to improve their lives, we estimate that global energy demand will be about 25 percent higher in 2040 than it was in 2015.

Meeting energy demand safely, reliably and affordably – while also minimizing risks and environmental impacts – will require advanced technology and expanded trade and investment. It will require innovation. And it also will require smart, practical energy choices by governments, individuals and businesses.

Understanding the factors that drive the world's energy needs – and likely choices to meet those needs – is the mission of the *Outlook*. By sharing the *Outlook* with the public, we hope to broaden that understanding among individuals, businesses and governments. Energy matters to everyone, and we all play a role in shaping its future.

Data

Energy demand (quadrillion BTUs, unless otherwise noted)						Average annual change			% change			Share of total		
Regions	2000	2010	2015	2025	2040	2015 2025	2025 2040	2015 2040	2015 2025	2025 2040	2015 2040	2015	2025	2040
World	416	527	564	634	700	1.2%	0.7%	0.9%	12%	11%	24%	100%	100%	100%
OECD	225	230	224	225	219	0.0%	-0.2%	-0.1%	0%	-3%	-3%	40%	36%	31%
Non-OECD	191	298	339	408	482	1.9%	1.1%	1.4%	20%	18%	42%	60%	64%	69%
Africa	22	30	34	43	60	2.4%	2.3%	2.3%	27%	40%	78%	6%	7%	9%
Asia Pacific	126	205	234	281	322	1.8%	0.9%	1.3%	20%	15%	38%	42%	44%	46%
China	47	102	120	143	153	1.7%	0.5%	1.0%	19%	7%	27%	21%	23%	22%
India	18	28	34	48	65	3.5%	2.0%	2.6%	41%	35%	91%	6%	8%	9%
Europe	79	81	76	74	70	-0.2%	-0.5%	-0.4%	-2%	-7%	-9%	14%	12%	10%
European Union	72	73	68	65	60	-0.4%	-0.6%	-0.5%	-4%	-9%	-12%	12%	10%	9%
Latin America	20	27	29	33	41	1.3%	1.5%	1.4%	14%	25%	42%	5%	5%	6%
Middle East	18	30	35	42	49	1.9%	1.1%	1.4%	21%	17%	41%	6%	7%	7%
North America	114	113	113	116	115	0.3%	0.0%	0.1%	3%	-1%	2%	20%	18%	16%
United States	96	93	93	94	91	0.1%	-0.2%	-0.1%	1%	-3%	-2%	16%	15%	13%
Russia/Caspian	38	43	43	45	43	0.4%	-0.2%	0.0%	4%	-4%	0%	8%	7%	6%
Energy by type - World														
Primary	416	527	564	634	700	1.2%	0.7%	0.9%	12%	11%	24%	100%	100%	100%
Oil	157	178	190	208	224	0.9%	0.5%	0.7%	9%	8%	18%	34%	33%	32%
Gas	89	116	124	150	178	1.9%	1.1%	1.5%	21%	19%	44%	22%	24%	25%
Coal	91	138	145	150	143	0.3%	-0.3%	-0.1%	3%	-5%	-2%	26%	24%	20%
Nuclear	27	29	27	35	51	2.7%	2.6%	2.6%	31%	47%	92%	5%	5%	7%
Biomass/waste	40	49	54	56	56	0.5%	0.0%	0.2%	5%	0%	5%	10%	9%	8%
Hydro	9	12	13	16	18	1.7%	0.8%	1.2%	18%	14%	34%	2%	2%	3%
Other renewables	3	7	11	19	31	5.5%	3.3%	4.2%	71%	63%	179%	2%	3%	4%
End-use sectors - World														
Residential and commercial														
Total	99	116	120	134	147	1.1%	0.6%	0.8%	12%	10%	23%	100%	100%	100%
Oil	16	15	15	15	14	0.2%	-0.4%	-0.2%	2%	-6%	-4%	12%	11%	10%
Gas	21	24	24	27	29	1.1%	0.5%	0.8%	12%	8%	21%	20%	20%	20%
Biomass/waste	29	33	35	35	33	0.2%	-0.5%	-0.2%	2%	-7%	-5%	29%	26%	22%
Electricity	23	32	35	45	60	2.5%	2.0%	2.2%	28%	34%	72%	29%	33%	41%
Other	10	11	11	12	11	0.4%	-0.5%	-0.1%	4%	-7%	-3%	9%	9%	7%
Transportation														
Total	81	101	111	125	139	1.2%	0.7%	0.9%	13%	11%	25%	100%	100%	100%
Oil	80	96	105	116	123	1.0%	0.4%	0.7%	10%	7%	18%	94%	93%	89%
Biofuels	0	3	3	5	6	2.6%	2.3%	2.4%	30%	40%	82%	3%	4%	5%
Gas	0	1	2	3	7	7.9%	5.1%	6.2%	114%	111%	353%	1%	3%	5%
Other	1	1	1	1	2	2.4%	3.4%	3.0%	27%	65%	109%	1%	1%	2%
Industrial														
Total	148	198	214	240	262	1.2%	0.6%	0.8%	12%	9%	23%	100%	100%	100%
Oil	49	56	60	68	78	1.3%	0.9%	1.1%	14%	15%	31%	28%	28%	30%
Gas	37	45	48	57	66	1.8%	0.9%	1.3%	20%	15%	37%	22%	24%	25%
Coal	27	49	52	52	45	0.0%	-0.9%	-0.5%	0%	-12%	-12%	24%	21%	17%
Electricity	22	30	35	43	52	2.0%	1.3%	1.6%	22%	22%	49%	16%	18%	20%
Other	14	17	19	20	20	0.4%	0.2%	0.3%	4%	3%	6%	9%	8%	8%
Power generation - World														
Primary	144	188	203	236	278	1.5%	1.1%	1.3%	17%	18%	37%	100%	100%	100%
Oil	12	10	10	9	8	-1.7%	-0.8%	-1.1%	-16%	-11%	-25%	5%	4%	3%
Gas	31	46	50	62	76	2.2%	1.3%	1.7%	25%	22%	51%	25%	26%	27%
Coal	61	84	89	94	95	0.6%	0.0%	0.2%	6%	0%	6%	44%	40%	34%
Nuclear	27	29	27	35	51	2.7%	2.6%	2.6%	31%	47%	92%	13%	15%	18%
Hydro	9	12	13	16	18	1.7%	0.8%	1.2%	18%	14%	34%	7%	7%	6%
Wind	0	1	3	6	11	8.6%	4.0%	5.8%	128%	80%	309%	1%	3%	4%
Other renewables	4	7	10	14	19	2.9%	2.2%	2.5%	33%	38%	84%	5%	6%	7%
Electricity demand (terawatt hours)														
World	13216	18574	20787	26090	33551	2.3%	1.7%	1.9%	26%	29%	61%	100%	100%	100%
OECD	8601	9680	9614	10443	11432	0.8%	0.6%	0.7%	9%	9%	19%	46%	40%	34%
Non-OECD	4615	8894	11174	15647	22119	3.4%	2.3%	2.8%	40%	41%	98%	54%	60%	66%

Energy demand (quadrillion BTUs)														
						Average annual change			% change			Share of total		
OECD Energy by type	2000	2010	2015	2025	2040	2015 2025	2025 2040	2015 2040	2015 2025	2025 2040	2015 2040	2015	2025	2040
Primary	225	230	224	225	219	0.0%	-0.2%	-0.1%	0%	-3%	-3%	100%	100%	100%
Oil	98	92	90	86	78	-0.4%	-0.7%	-0.6%	-4%	-9%	-13%	40%	38%	36%
Gas	47	54	56	63	69	1.2%	0.6%	0.8%	13%	9%	23%	25%	28%	32%
Coal	43	42	37	28	18	-2.5%	-3.2%	-2.9%	-22%	-38%	-52%	16%	13%	8%
Nuclear	23	24	20	22	24	0.8%	0.6%	0.7%	9%	9%	19%	9%	10%	11%
Biomass/waste	7	9	10	10	10	0.2%	-0.4%	-0.2%	2%	-6%	-4%	4%	5%	4%
Hydro	5	5	5	5	5	0.6%	0.2%	0.3%	7%	2%	9%	2%	2%	2%
Other renewables	2	4	6	10	15	4.5%	2.7%	3.4%	55%	49%	132%	3%	4%	7%
End-use sectors														
Residential and commercial														
Total	47	51	48	48	47	0.1%	-0.1%	0.0%	1%	-2%	0%	100%	100%	100%
Oil	11	8	6	5	3	-2.3%	-3.0%	-2.7%	-21%	-36%	-50%	13%	10%	6%
Gas	16	17	16	16	16	0.2%	-0.2%	-0.1%	2%	-3%	-2%	34%	34%	33%
Biomass/waste	2	3	3	3	2	-0.3%	-1.0%	-0.7%	-3%	-13%	-16%	6%	6%	5%
Electricity	17	21	20	22	24	0.8%	0.6%	0.7%	8%	9%	18%	43%	46%	51%
Other	2	3	2	2	2	0.2%	-0.5%	-0.2%	2%	-7%	-5%	5%	5%	4%
Transportation														
Total	55	58	58	57	53	-0.2%	-0.5%	-0.3%	-2%	-7%	-8%	100%	100%	100%
Oil	55	55	55	53	48	-0.4%	-0.8%	-0.6%	-4%	-11%	-14%	95%	94%	89%
Biofuels	0	2	2	3	3	1.4%	1.3%	1.3%	15%	22%	39%	4%	4%	6%
Gas	0	0	0	1	2	17.6%	6.5%	10.8%	406%	159%	1210%	0%	1%	4%
Other	0	0	0	0	1	0.7%	3.3%	2.3%	7%	64%	75%	1%	1%	1%
Industrial														
Total	70	67	69	72	73	0.4%	0.1%	0.2%	4%	1%	5%	100%	100%	100%
Oil	28	26	27	27	27	0.2%	-0.1%	0.0%	2%	-1%	1%	39%	38%	37%
Gas	18	18	19	22	24	1.7%	0.5%	1.0%	19%	7%	27%	28%	31%	33%
Coal	8	7	7	5	3	-4.1%	-2.8%	-3.3%	-34%	-35%	-57%	10%	6%	4%
Electricity	12	12	12	13	14	0.9%	0.6%	0.7%	9%	9%	19%	17%	18%	20%
Other	4	4	4	5	4	0.1%	-0.3%	-0.1%	1%	-4%	-3%	6%	6%	6%
Power generation														
Primary	84	90	85	86	86	0.1%	0.0%	0.1%	1%	0%	1%	100%	100%	100%
Oil	5	3	2	1	1	-7.1%	-3.0%	-4.7%	-52%	-37%	-70%	3%	1%	1%
Gas	13	20	21	24	27	1.2%	0.9%	1.0%	13%	15%	30%	25%	28%	32%
Coal	35	34	29	23	14	-2.2%	-3.2%	-2.8%	-20%	-38%	-50%	34%	27%	17%
Nuclear	23	24	20	22	24	0.8%	0.6%	0.7%	9%	9%	19%	24%	25%	28%
Hydro	5	5	5	5	5	0.6%	0.2%	0.3%	7%	2%	9%	6%	6%	6%
Wind	0	1	2	4	6	6.9%	3.6%	4.9%	95%	70%	232%	2%	4%	7%
Other renewables	3	4	6	7	8	2.0%	1.0%	1.4%	22%	16%	43%	7%	8%	10%

General note on data tables: Rounding may lead to minor differences between totals and the sum of their individual parts.

Data

Energy demand (quadrillion BTUs)															
						Average annual change			% change			Share of total		
Non-OECD Energy by type	2000	2010	2015	2025	2040	2015 2025	2025 2040	2015 2040	2015 2025	2025 2040	2015 2040	2015	2025	2040
Primary	191	298	339	408	482	1.9%	1.1%	1.4%	20%	18%	42%	100%	100%	100%
Oil	59	85	100	121	145	2.0%	1.2%	1.5%	22%	20%	46%	29%	30%	30%
Gas	42	61	67	86	108	2.5%	1.5%	1.9%	28%	25%	61%	20%	21%	22%
Coal	48	96	109	122	126	1.1%	0.2%	0.6%	12%	3%	15%	32%	30%	26%
Nuclear	4	5	6	13	27	7.3%	5.1%	5.9%	101%	111%	324%	2%	3%	6%
Biomass/waste	33	40	44	46	47	0.5%	0.1%	0.3%	5%	1%	7%	13%	11%	10%
Hydro	4	7	9	11	13	2.3%	1.2%	1.6%	25%	19%	48%	3%	3%	3%
Other renewables	1	3	5	9	17	6.8%	3.9%	5.0%	93%	77%	240%	1%	2%	3%
End-use sectors														
Residential and commercial														
Total	51	65	72	86	100	1.7%	1.0%	1.3%	19%	16%	38%	100%	100%	100%
Oil	6	7	9	10	11	1.7%	0.5%	1.0%	18%	8%	27%	12%	12%	11%
Gas	5	7	8	11	13	2.8%	1.5%	2.0%	32%	26%	66%	11%	12%	13%
Biomass/waste	27	30	32	33	30	0.2%	-0.4%	-0.2%	2%	-6%	-4%	44%	38%	31%
Electricity	6	11	14	23	36	4.6%	3.1%	3.7%	57%	58%	148%	20%	26%	36%
Other	8	9	9	9	9	0.4%	-0.5%	-0.1%	4%	-7%	-3%	13%	11%	9%
Transportation														
Total	26	43	53	68	86	2.5%	1.6%	2.0%	29%	26%	62%	100%	100%	100%
Oil	25	41	49	62	76	2.4%	1.3%	1.7%	26%	22%	53%	94%	92%	88%
Biofuels	0	1	1	2	3	4.6%	3.4%	3.9%	57%	65%	159%	2%	3%	4%
Gas	0	1	1	3	5	6.2%	4.6%	5.3%	83%	97%	260%	3%	4%	6%
Other	0	1	1	1	2	3.2%	3.4%	3.3%	37%	65%	125%	1%	1%	2%
Industrial														
Total	78	131	145	168	190	1.5%	0.8%	1.1%	16%	13%	31%	100%	100%	100%
Oil	21	30	33	41	51	2.1%	1.5%	1.8%	23%	25%	54%	23%	24%	27%
Gas	19	27	29	35	42	1.9%	1.2%	1.5%	20%	20%	44%	20%	21%	22%
Coal	19	42	45	47	42	0.5%	-0.7%	-0.2%	5%	-10%	-6%	31%	28%	22%
Electricity	9	19	23	30	38	2.6%	1.6%	2.0%	30%	27%	65%	16%	18%	20%
Other	10	13	15	15	16	0.4%	0.3%	0.4%	5%	4%	9%	10%	9%	8%
Power generation														
Primary	59	98	117	150	191	2.5%	1.6%	2.0%	28%	28%	63%	100%	100%	100%
Oil	7	7	8	8	7	-0.6%	-0.5%	-0.5%	-6%	-7%	-12%	7%	5%	4%
Gas	17	26	29	38	48	2.9%	1.5%	2.1%	33%	26%	67%	25%	26%	25%
Coal	26	50	60	71	80	1.7%	0.8%	1.2%	18%	13%	34%	51%	47%	42%
Nuclear	4	5	6	13	27	7.3%	5.1%	5.9%	101%	111%	324%	5%	9%	14%
Hydro	4	7	9	11	13	2.3%	1.2%	1.6%	25%	19%	48%	7%	7%	7%
Wind	0	0	1	3	5	11.4%	4.5%	7.2%	194%	92%	466%	1%	2%	3%
Other renewables	1	3	5	7	11	3.9%	3.3%	3.5%	47%	62%	138%	4%	4%	6%

Energy demand (quadrillion BTUs)						Average annual change			% change			Share of total		
Regions	2000	2010	2015	2025	2040	2015 2025	2025 2040	2015 2040	2015 2025	2025 2040	2015 2040	2015	2025	2040
AFRICA														
Primary	22	30	34	43	60	2.4%	2.3%	2.3%	27%	40%	78%	100%	100%	100%
Oil	5	8	9	12	19	3.7%	2.9%	3.2%	43%	54%	120%	26%	29%	32%
Gas	4	5	5	7	11	3.3%	3.0%	3.1%	39%	56%	117%	15%	17%	19%
Coal	3	4	4	5	6	1.4%	1.8%	1.6%	15%	31%	50%	12%	11%	10%
Nuclear	0	0	0	0	1	5.1%	13.6%	10.1%	64%	581%	1020%	0%	0%	2%
Biomass/waste	10	13	15	17	20	1.4%	1.1%	1.2%	15%	18%	35%	45%	40%	34%
Hydro	0	0	0	1	1	7.0%	3.4%	4.8%	97%	65%	225%	1%	2%	2%
Other renewables	0	0	0	0	1	7.5%	4.7%	5.8%	106%	100%	312%	1%	1%	1%
Demand by sector														
Total end-use (including electricity)	20	26	30	37	51	2.3%	2.1%	2.2%	25%	37%	72%	100%	100%	100%
Residential and commercial	9	12	14	18	23	2.1%	1.7%	1.9%	23%	30%	60%	48%	47%	45%
Transportation	3	4	5	7	10	3.2%	2.6%	2.9%	37%	47%	102%	18%	19%	21%
Industrial	7	9	10	12	17	2.0%	2.3%	2.2%	22%	41%	73%	34%	33%	34%
Memo: electricity demand	1	2	2	4	7	5.2%	4.4%	4.7%	66%	92%	219%	7%	10%	13%
Power generation fuel[1]	4	6	6	9	16	4.2%	3.7%	3.9%	50%	73%	160%	18%	22%	27%
ASIA PACIFIC														
Primary	126	205	234	281	322	1.8%	0.9%	1.3%	20%	15%	38%	100%	100%	100%
Oil	43	57	66	77	87	1.5%	0.9%	1.1%	16%	14%	33%	28%	27%	27%
Gas	12	21	25	37	50	3.9%	2.0%	2.7%	46%	34%	96%	11%	13%	15%
Coal	43	92	105	116	119	1.0%	0.2%	0.5%	11%	3%	14%	45%	41%	37%
Nuclear	5	6	4	12	23	11.0%	4.4%	7.0%	184%	92%	445%	2%	4%	7%
Biomass/waste	20	23	24	25	22	0.1%	-0.8%	-0.4%	1%	-11%	-10%	10%	9%	7%
Hydro	2	4	5	7	7	2.2%	0.8%	1.3%	24%	12%	39%	2%	2%	2%
Other renewables	1	2	4	8	14	6.9%	3.8%	5.0%	95%	75%	241%	2%	3%	4%
Demand by sector														
Total end-use (including electricity)	100	159	182	214	240	1.6%	0.8%	1.1%	18%	12%	32%	100%	100%	100%
Residential and commercial	33	41	46	55	62	1.8%	0.8%	1.2%	19%	13%	35%	25%	26%	26%
Transportation	18	28	34	44	55	2.5%	1.5%	1.9%	28%	24%	59%	19%	21%	23%
Industrial	49	90	101	115	123	1.3%	0.5%	0.8%	14%	7%	22%	56%	54%	51%
Memo: electricity demand	12	24	30	42	57	3.2%	2.1%	2.5%	37%	36%	87%	17%	20%	24%
Power generation fuel[1]	40	73	87	112	143	2.6%	1.6%	2.0%	30%	27%	65%	37%	40%	44%
EUROPE														
Primary	79	81	76	74	70	-0.2%	-0.5%	-0.4%	-2%	-7%	-9%	100%	100%	100%
Oil	32	30	28	26	22	-1.0%	-0.9%	-0.9%	-9%	-12%	-20%	37%	34%	32%
Gas	17	20	17	18	20	1.0%	0.4%	0.6%	11%	6%	17%	22%	25%	28%
Coal	14	13	12	10	4	-2.1%	-5.2%	-4.0%	-19%	-55%	-64%	15%	13%	6%
Nuclear	10	10	9	8	9	-0.6%	0.7%	0.2%	-6%	11%	4%	12%	11%	14%
Biomass/waste	3	5	6	6	6	1.0%	-0.4%	0.2%	11%	-6%	5%	7%	8%	8%
Hydro	2	2	2	2	2	0.3%	0.3%	0.3%	3%	4%	7%	3%	3%	3%
Other renewables	0	2	3	4	6	3.9%	2.2%	2.9%	47%	39%	104%	4%	5%	8%
Demand by sector														
Total end-use (including electricity)	61	63	60	59	56	-0.2%	-0.4%	-0.3%	-2%	-6%	-7%	100%	100%	100%
Residential and commercial	18	21	19	19	18	0.1%	-0.4%	-0.2%	1%	-6%	-5%	32%	33%	32%
Transportation	17	19	18	17	17	-0.4%	-0.3%	-0.4%	-4%	-5%	-9%	30%	30%	30%
Industrial	25	24	23	22	21	-0.2%	-0.4%	-0.3%	-2%	-6%	-8%	38%	38%	38%
Memo: electricity demand	10	12	11	12	13	0.9%	0.5%	0.6%	9%	7%	17%	19%	21%	24%
Power generation fuel[1]	29	32	30	30	29	0.1%	-0.3%	-0.1%	1%	-4%	-3%	39%	40%	42%

[1]Share based on total primary energy

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Data

Energy demand (quadrillion BTUs)						Average annual change			% change			Share of total		
Regions	2000	2010	2015	2025	2040	2015 2025	2025 2040	2015 2040	2015 2025	2025 2040	2015 2040	2015	2025	2040
LATIN AMERICA														
Primary	20	27	29	33	41	1.3%	1.5%	1.4%	14%	25%	42%	100%	100%	100%
Oil	10	12	13	15	17	1.1%	0.9%	1.0%	12%	15%	29%	46%	45%	42%
Gas	4	6	6	7	11	1.6%	2.7%	2.3%	18%	49%	75%	21%	22%	26%
Coal	1	1	1	1	2	1.9%	1.2%	1.5%	20%	20%	44%	4%	4%	4%
Nuclear	0	0	0	0	0	4.8%	1.7%	3.0%	60%	30%	108%	1%	1%	1%
Biomass/waste	3	4	5	5	5	-0.4%	0.2%	0.0%	-4%	3%	-1%	16%	14%	11%
Hydro	2	2	2	3	3	1.8%	1.4%	1.5%	19%	23%	46%	8%	8%	8%
Other renewables	0	1	1	2	3	5.6%	3.5%	4.3%	73%	67%	189%	4%	6%	8%
Demand by sector														
Total end-use (including electricity)	18	23	25	29	36	1.4%	1.5%	1.4%	15%	24%	43%	100%	100%	100%
Residential and commercial	3	4	5	5	6	1.3%	1.2%	1.2%	14%	19%	36%	18%	18%	17%
Transportation	5	7	8	10	12	1.7%	1.3%	1.4%	19%	21%	43%	32%	33%	32%
Industrial	9	12	13	14	18	1.2%	1.7%	1.5%	13%	29%	46%	50%	49%	51%
Memo: electricity demand	2	3	4	5	7	2.3%	2.4%	2.4%	26%	43%	80%	14%	16%	18%
Power generation fuel[1]	4	6	7	9	12	1.6%	2.0%	1.9%	18%	35%	59%	26%	26%	29%
MIDDLE EAST														
Primary	18	30	35	42	49	1.9%	1.1%	1.4%	21%	17%	41%	100%	100%	100%
Oil	11	16	18	20	22	1.3%	0.6%	0.9%	14%	10%	26%	51%	48%	45%
Gas	7	13	16	21	24	2.3%	1.1%	1.6%	26%	19%	49%	47%	49%	50%
Coal	0	0	0	0	0	-4.8%	-4.6%	-4.7%	-39%	-51%	-70%	1%	1%	0%
Nuclear	0	0	0	0	1	22.6%	7.5%	13.3%	667%	194%	2156%	0%	1%	3%
Biomass/waste	0	0	0	0	0	6.5%	6.1%	6.3%	88%	145%	361%	0%	0%	0%
Hydro	0	0	0	0	0	2.3%	2.1%	2.2%	25%	38%	72%	0%	0%	0%
Other renewables	0	0	0	0	1	8.6%	5.9%	7.0%	127%	137%	439%	0%	1%	1%
Demand by sector														
Total end-use (including electricity)	14	23	27	33	39	1.9%	1.1%	1.4%	21%	18%	43%	100%	100%	100%
Residential and commercial	3	4	5	6	7	2.0%	1.4%	1.6%	22%	23%	49%	18%	18%	19%
Transportation	4	7	8	9	10	1.3%	0.9%	1.0%	14%	14%	30%	28%	27%	26%
Industrial	7	12	15	18	21	2.2%	1.2%	1.6%	24%	19%	48%	53%	55%	55%
Memo: electricity demand	1	3	3	5	6	3.8%	2.2%	2.8%	46%	38%	102%	12%	14%	17%
Power generation fuel[1]	5	9	11	14	17	2.5%	1.3%	1.8%	28%	21%	55%	31%	33%	34%
NORTH AMERICA														
Primary	114	113	113	116	115	0.3%	0.0%	0.1%	3%	-1%	2%	100%	100%	100%
Oil	48	46	46	47	44	0.3%	-0.4%	-0.1%	3%	-6%	-4%	41%	41%	39%
Gas	26	28	32	37	40	1.3%	0.7%	0.9%	14%	10%	26%	28%	32%	35%
Coal	23	21	16	12	7	-2.9%	-3.6%	-3.3%	-26%	-42%	-57%	14%	10%	6%
Nuclear	9	10	10	10	11	-0.2%	0.7%	0.3%	-2%	11%	9%	9%	8%	9%
Biomass/waste	4	3	3	3	3	-0.7%	-0.6%	-0.6%	-6%	-9%	-15%	3%	3%	3%
Hydro	2	2	2	2	3	1.0%	0.1%	0.4%	10%	1%	11%	2%	2%	2%
Other renewables	1	2	3	5	7	4.7%	2.9%	3.6%	58%	53%	141%	3%	4%	6%
Demand by sector														
Total end-use (including electricity)	86	86	88	92	93	0.5%	0.0%	0.2%	5%	1%	6%	100%	100%	100%
Residential and commercial	23	23	22	23	23	0.1%	0.1%	0.1%	1%	1%	2%	25%	24%	25%
Transportation	31	32	33	33	31	0.1%	-0.5%	-0.2%	1%	-7%	-6%	37%	36%	33%
Industrial	33	30	32	36	39	1.2%	0.5%	0.7%	12%	7%	21%	37%	40%	42%
Memo: electricity demand	15	16	16	17	19	0.7%	0.7%	0.7%	7%	10%	18%	18%	19%	20%
Power generation fuel[1]	42	43	42	41	41	-0.1%	0.1%	0.0%	-1%	1%	-1%	37%	35%	36%

[1]Share based on total primary energy

Energy demand (quadrillion BTUs)						Average annual change			% change			Share of total		
Regions	2000	2010	2015	2025	2040	2015 2025	2025 2040	2015 2040	2015 2025	2025 2040	2015 2040	2015	2025	2040
RUSSIA/CASPIAN														
Primary	38	43	43	45	43	0.4%	-0.2%	0.0%	4%	-4%	0%	100%	100%	100%
Oil	8	9	10	11	11	0.8%	0.0%	0.3%	8%	0%	8%	24%	25%	25%
Gas	20	23	22	23	22	0.4%	-0.3%	0.0%	4%	-5%	-1%	51%	51%	50%
Coal	7	7	7	6	5	-1.0%	-1.7%	-1.4%	-9%	-23%	-31%	16%	14%	11%
Nuclear	2	3	3	3	4	1.4%	1.4%	1.4%	14%	23%	41%	7%	8%	10%
Biomass/waste	0	0	0	0	0	0.0%	-0.6%	-0.3%	0%	-8%	-8%	1%	1%	1%
Hydro	1	1	1	1	1	0.6%	0.3%	0.4%	6%	4%	11%	2%	2%	2%
Other renewables	0	0	0	0	0	7.1%	5.0%	5.8%	98%	107%	310%	0%	0%	0%
Demand by sector														
Total end-use (including electricity)	29	33	33	35	34	0.5%	-0.1%	0.1%	5%	-2%	3%	100%	100%	100%
Residential and commercial	9	9	9	8	8	-0.2%	-0.7%	-0.5%	-2%	-10%	-12%	26%	24%	22%
Transportation	3	4	4	5	5	0.5%	0.2%	0.3%	5%	3%	8%	13%	13%	14%
Industrial	17	20	20	22	21	0.8%	0.0%	0.3%	8%	0%	8%	60%	62%	64%
Memo: electricity demand	3	4	4	5	6	1.7%	0.9%	1.2%	19%	14%	36%	13%	14%	17%
Power generation fuel[1]	19	20	20	21	20	0.3%	-0.4%	-0.1%	3%	-5%	-3%	47%	47%	46%
GDP by region (2010$, trillions)														
World	50	66	75	99	150	2.9%	2.8%	2.8%	33%	51%	101%	100%	100%	100%
OECD	38	44	48	58	77	2.0%	1.9%	1.9%	21%	32%	61%	64%	59%	51%
Non-OECD	12	21	27	41	73	4.5%	3.9%	4.1%	55%	78%	175%	36%	41%	49%
Africa	1	2	2	3	6	4.0%	3.9%	4.0%	48%	78%	164%	3%	3%	4%
Asia Pacific	12	19	24	36	61	4.2%	3.6%	3.9%	51%	70%	157%	32%	36%	40%
China	2	6	9	15	29	5.8%	4.2%	4.8%	75%	86%	225%	12%	16%	19%
India	1	2	2	5	10	6.8%	5.3%	5.9%	93%	116%	316%	3%	5%	7%
Europe	16	19	20	24	31	1.8%	1.7%	1.7%	20%	28%	54%	27%	24%	20%
European Union	15	17	18	21	27	1.7%	1.6%	1.6%	19%	27%	50%	24%	21%	18%
Latin America	3	4	5	6	9	2.2%	2.9%	2.6%	25%	53%	91%	6%	6%	6%
Middle East	1	2	2	3	6	3.4%	3.3%	3.3%	40%	62%	127%	3%	4%	4%
North America	15	18	20	24	34	2.3%	2.3%	2.3%	25%	40%	76%	26%	25%	23%
United States	13	15	17	21	29	2.2%	2.2%	2.2%	25%	39%	73%	22%	21%	19%
Russia/Caspian	1	2	2	3	4	2.4%	2.7%	2.5%	26%	48%	87%	3%	3%	3%
Energy intensity (thousand BTU per $ GDP)														
World	8.4	8.0	7.6	6.4	4.7	-1.7%	-2.1%	-1.9%	-16%	-27%	-38%			
OECD	5.9	5.2	4.7	3.9	2.8	-1.9%	-2.1%	-2.0%	-17%	-27%	-39%			
Non-OECD	16.5	14.0	12.7	9.9	6.6	-2.5%	-2.7%	-2.6%	-22%	-34%	-48%			
Africa	19.0	15.2	14.6	12.5	9.9	-1.5%	-1.6%	-1.6%	-14%	-21%	-32%			
Asia Pacific	10.7	10.9	9.9	7.9	5.3	-2.3%	-2.6%	-2.5%	-21%	-32%	-46%			
China	21.0	16.8	13.7	9.3	5.4	-3.8%	-3.6%	-3.7%	-32%	-42%	-61%			
India	21.7	16.3	14.5	10.6	6.6	-3.0%	-3.1%	-3.1%	-27%	-38%	-54%			
Europe	4.9	4.3	3.8	3.1	2.3	-2.0%	-2.1%	-2.1%	-18%	-27%	-41%			
European Union	4.9	4.3	3.8	3.1	2.2	-2.1%	-2.1%	-2.1%	-19%	-28%	-41%			
Latin America	6.7	6.3	6.3	5.7	4.7	-0.9%	-1.4%	-1.2%	-8%	-19%	-26%			
Middle East	13.9	14.0	14.0	12.1	8.7	-1.5%	-2.2%	-1.9%	-14%	-28%	-38%			
North America	7.6	6.4	5.8	4.7	3.3	-2.0%	-2.3%	-2.2%	-18%	-29%	-42%			
United States	7.6	6.2	5.6	4.5	3.2	-2.1%	-2.4%	-2.2%	-19%	-30%	-43%			
Russia/Caspian	31.6	21.1	19.8	16.3	10.6	-1.9%	-2.8%	-2.5%	-18%	-35%	-47%			
Energy-related CO_2 emissions (billion tonnes)														
World	23.7	31.0	32.8	35.5	36.4	0.8%	0.2%	0.4%	8%	3%	11%	100%	100%	100%
OECD	12.9	12.8	12.2	11.4	9.8	-0.7%	-1.0%	-0.9%	-7%	-14%	-20%	37%	32%	27%
Non-OECD	10.8	18.2	20.6	24.0	26.6	1.6%	0.7%	1.0%	17%	11%	30%	63%	68%	73%
Africa	0.9	1.2	1.3	1.7	2.5	2.8%	2.6%	2.7%	32%	46%	93%	4%	5%	7%
Asia Pacific	7.5	13.5	15.5	17.7	19.1	1.4%	0.5%	0.8%	15%	7%	23%	47%	50%	52%
China	3.3	7.8	8.9	9.8	9.4	1.0%	-0.3%	0.2%	10%	-4%	6%	27%	28%	26%
India	0.9	1.6	2.1	3.1	4.0	3.8%	1.8%	2.6%	46%	31%	91%	6%	9%	11%
Europe	4.3	4.3	3.9	3.6	2.8	-0.8%	-1.6%	-1.3%	-8%	-21%	-27%	12%	10%	8%
European Union	4.0	3.9	3.4	3.1	2.4	-1.0%	-1.8%	-1.4%	-9%	-23%	-31%	10%	9%	7%
Latin America	0.9	1.2	1.4	1.5	1.9	1.3%	1.4%	1.4%	13%	24%	41%	4%	4%	5%
Middle East	1.1	1.8	2.1	2.4	2.5	1.2%	0.5%	0.8%	13%	8%	22%	6%	7%	7%
North America	6.7	6.5	6.2	6.0	5.3	-0.3%	-0.9%	-0.6%	-3%	-12%	-15%	19%	17%	15%
United States	5.8	5.5	5.2	5.0	4.2	-0.5%	-1.1%	-0.9%	-5%	-15%	-20%	16%	14%	12%
Russia/Caspian	2.3	2.5	2.5	2.5	2.3	0.0%	-0.6%	-0.4%	0%	-9%	-9%	8%	7%	6%

[1]Share based on total primary energy

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Glossary

Billion cubic feet per day (BCFD): This is used to define volumetric rates of natural gas. One billion cubic feet per day of natural gas is enough to meet about 2 percent of the natural gas used in homes around the world. Six billion cubic feet per day of natural gas is equivalent to about 1 million oil-equivalent barrels per day.

British thermal unit (BTU): A BTU is a standard unit of energy that can be used to measure any type of energy source. The energy content of one gallon of gasoline is about 125,000 BTUs. "Quad" refers to a quadrillion (10^{15}) BTUs.

Conventional Vehicle: A type of light-duty vehicle with an internal combustion engine, typically either a gasoline-fueled spark ignition engine or a diesel-fueled compression ignition engine. Conventional includes vehicles with advanced technologies such as turbocharging and "mild hybrid" features such as a stop start engine.

Hybrid Vehicle: A "full" hybrid is a type of light-duty vehicle that has a battery (usually a nickel metal hydride) and an electric motor, as well as a conventional internal combustion engine. When brakes are applied, the energy of the moving vehicle is stored in the battery and can be used later, thus saving fuel.

Hydrogen fuel cell vehicle: A type of light-duty vehicle where hydrogen is the fuel and is stored onboard. This hydrogen is passed through a fuel cell that then provides electricity to power the vehicle.

Light-duty vehicle (LDV): A classification of road vehicles that includes cars, light-trucks and sport utility vehicles (SUVs). Motorcycles are not counted in the light-duty vehicle fleet size or fuel-economy, but the fuel used in motorcycles is included in light-duty transportation demand.

Liquefied natural gas (LNG): Natural gas (predominantly methane) that has been super-chilled for conversion to liquid form for ease of transport.

Liquefied petroleum gas (LPG): A classification of hydrocarbon fuel including propane, butane and other similar hydrocarbons with low molecular weight.

Million oil-equivalent barrels per day (MBDOE): This term provides a standardized unit of measure for different types of energy sources (oil, gas, coal, etc.) based on energy content relative to a typical barrel of oil. One million oil-equivalent barrels per day is enough energy to fuel about 4 percent of the light-duty vehicles on the world's roads today.

Natural Gas Liquids (NGL): Liquid fuels produced chiefly in association with natural gas. NGLs are components of natural gas that are separated from the gaseous state into liquid form during natural gas processing. Ethane, propane, butane, isobutane and pentane are all NGLs.

Organisation for Economic Co-operation and Development (OECD): A forum for about 35 member nations from across the world that work with each other, as well as with many more partner nations, to promote policies that will improve the economic and social well-being of people around the world. Note: OECD data in this report reflects OECD member countries as of June 2016.

Plug-in Hybrid Electric Vehicle (PHEV): A type of light-duty vehicle that typically uses an electric motor to drive the wheels. Unlike other electric vehicles, a PHEV also has a conventional internal combustion engine that can charge its battery using petroleum fuels if needed, and in some cases drive the wheels.

PPP: Purchasing power parity

Primary energy: Includes energy in the form of oil, natural gas, coal, nuclear, hydro, geothermal, wind, solar and bioenergy sources (biofuels, municipal solid waste, traditional biomass). It does not include electricity or market heat, which are secondary energy types reflecting conversion/production from primary energy sources.

Secondary energy: Energy types, including electricity and market heat, which are derived from primary energy sources. For example, electricity is a secondary energy type generated using natural gas, wind or other primary energy source.

TCF: Trillion Cubic Feet

Watt: A unit of electrical power, equal to one joule per second. A 1-gigawatt power plant can meet the electricity demand of more than 500,000 homes in the U.S. (Kilowatt (kW) = 1,000 watts; Gigawatt (GW) = 1,000,000,000 watts; Terawatt (TW) = 10^{12} watts).

Watt-hour: A unit of electrical energy. 300 terawatt hours is equivalent to about 1 quadrillion BTUs (Quad). (Kilowatt-hour (kWh) = 1,000 watt-hours; Gigawatt-hour (GWh) = 1,000,000,000 watt-hours; Terawatt-hour (TWh) = 10^{12} watt-hours).

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The Outlook for Energy: A View to 2040

2014

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The Outlook for Energy: A View to 2040

The Outlook for Energy is ExxonMobil's long-term global view of energy demand and supply. Its findings help guide ExxonMobil's long-term investments, and we share the *Outlook* to help promote better understanding of the issues shaping the world's energy future. Updated each year, this edition covers the period to 2040.

By 2040, we expect to see ...

2 billion more people

on the planet.

130 percent

larger global economy.

about 35 percent

greater demand for energy – which could have more than doubled without gains in efficiency.

non-OECD countries

like China and India lead the growth in energy demand.

about 60 percent

of demand supplied by oil and natural gas.

natural gas surpass coal

as the second-largest fuel source.

90 percent growth

in demand for electricity.

energy-related CO_2

emissions plateau and gradually decline.

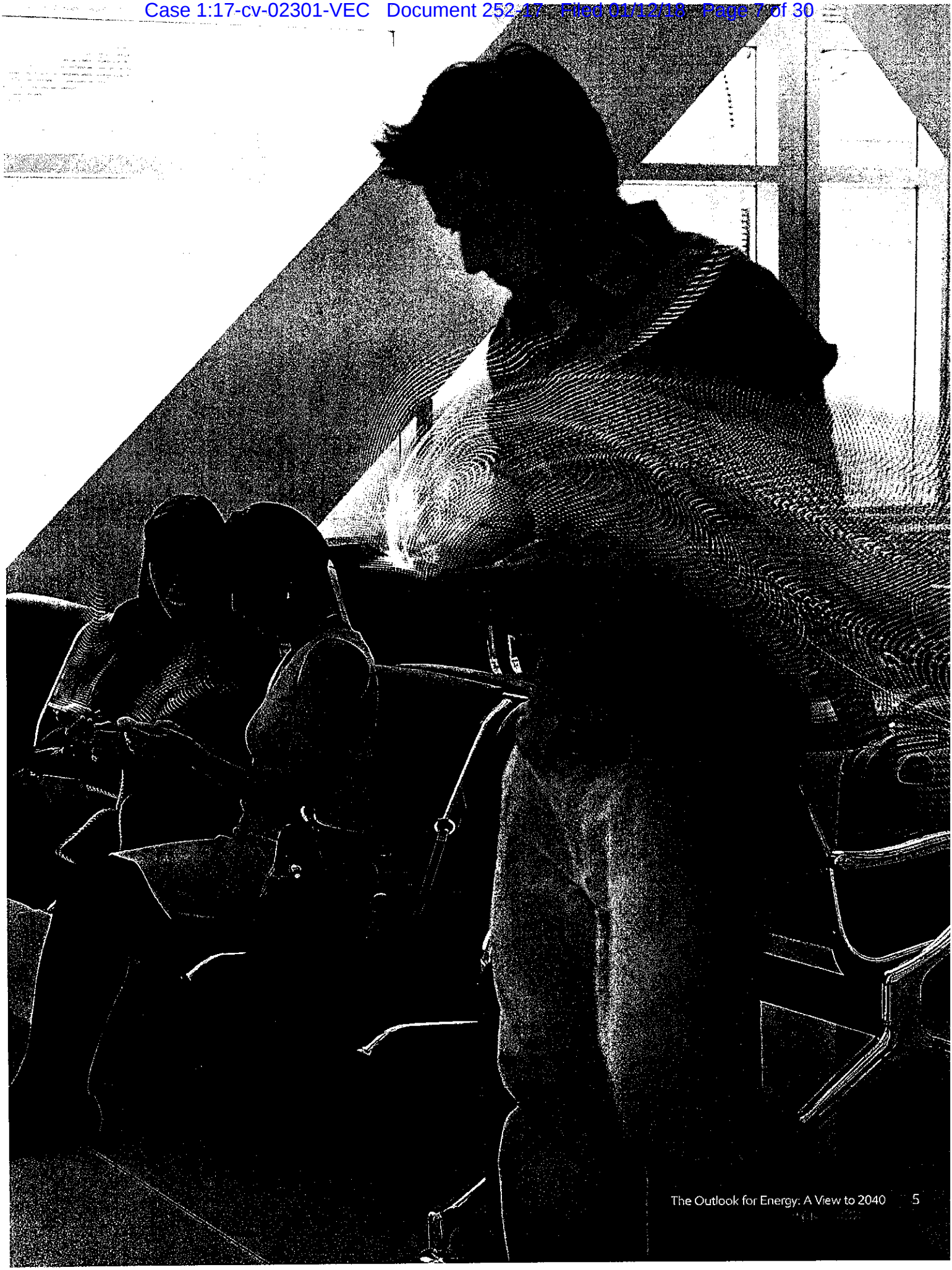
Why energy?

Few of us – especially those of us living in advanced economies – ever pause to reflect on the pervasive importance of energy to our lives. That's only natural given the convenience and reliability of the energy we use. Consider electricity, for example. It flows when we flip a switch and suddenly there's light. We turn on a cell phone and instantly connect with others around the world. It happens so automatically, that only disruptions get our attention.

At the same time, few of us ever get a glimpse of the energy being used miles away to produce this electricity for our benefit. Similarly, we expect our local service station will have fuel when we drive our car or truck in for a fill-up. Do we ever consider the energy it took to get the gasoline to the station, let alone the energy used to build our car?

"Energy is a critical part of boosting prosperity and eradicating poverty."

Jim Yong Kim, President, World Bank Group



Why energy?

Energy is everywhere and it transforms everything

Think about it. Energy is all around us. Vital in virtually every aspect of our lives, it's remarkable that the value of energy doesn't get broader recognition.

How are modern energy supplies paired with today's technologies to improve your own life? You're warmed in the winter and cooled in the summer, thanks to energy. Electricity powers your alarm clock, your television, and your cell phone. A refrigerator uses energy to keep your food safe to consume and your oven uses energy to cook it. And before that your food was grown by farmers, then processed, packaged and transported to the grocery store from another part of the country or the world, using energy at every step along the way. Essentially every task you perform and every product you use throughout the day is made possible because of energy.

It raises the question, **why energy?** The answer is simple. Energy helps us survive and frees us to pursue fuller lives in thousands of ways.

Today, most people are fortunate to have energy supplies and clean water flowing directly to their homes. Modern appliances can handle tasks like cooking and laundry while we read an e-book, watch television, shop online, hit the treadmill or challenge the kids to a video game, all in a temperature-controlled room.

We have unparalleled travel options. We can use a motorcycle, car, bus, truck, train, boat or plane. We can dash to school, to work or to the grocery store in minutes. We can drive hundreds of miles to see family or fly across an ocean in hours. And we can trade goods with others thousands of miles away. Energy not only powers all of this travel, it helps us build the vehicles and infrastructure that it requires.

When our loved ones are sick, energy is integral to getting them to the doctor and restoring their health. From hospitals and urgent care facilities, to basic pharmaceutical drugs, to materials that keep equipment sterile, to high tech diagnostic tools such as MRIs, energy has a hand in producing and powering our health system.

2.6 billion

Today, 2.6 billion people still rely on traditional biomass energy for cooking

Our lives are also affected by electric-powered devices that are transforming communications and computing. Today we can be in touch with someone else basically anytime, anywhere in a matter of seconds. And with the Internet, we can transform the education of our children, telecommute to work, capture new trade opportunities, see distant friends and family, or attend online classes to improve our education.

These technologies are widely used today only because they provide practical value to people like

you, value that would not exist without convenient access to modern and reliable energy supplies *This combination of technology and energy provides* important synergies that improve human life We can meet basic needs much more efficiently and in turn pursue more valuable activities, whether it's time with family and friends, furthering our education, inventing a new medical treatment, building a business, playing or simply helping a neighbor

Energy and human progress

The last two centuries have seen remarkable changes across our world The global population has increased from 1 billion to 7 billion people At the same time, living standards have advanced dramatically in many parts of the world, supported by modern technologies and access to energy People with the freedom to innovate and thrive in an environment of investment risk-and reward led a burst of human progress, the pace and scale of which has been remarkable As an indicator, energy consumption worldwide is now about 25 times higher than in 1800

Expanding use of advanced technologies has also correlated with increasing demand for coal, oil, natural gas and electricity As technologies and needs have evolved, people have naturally sought practical solutions with energy that are reliable, affordable and convenient An often unrecognized sign of technology's progress over time is dramatic energy efficiency gains For example, a steam engine in 1800 at 6 percent efficiency pales in comparison to a modern combined-cycle gas turbine with about 60 percent efficiency It's no coincidence that people's quest to improve the use of their resources also extends to energy

Together, technology and energy advances have helped bring about an unprecedented improvement in the key indicators of human well-being, including incomes, literacy rates and average life expectancy in many parts of the world

Still, this dramatic progress has not been seen everywhere According to the International Energy Agency (IEA), 1 3 billion people live without access to electricity, while 2 6 billion people rely on traditional biomass energy for cooking

"The global energy landscape is changing rapidly. And those changes will recast our expectations about the role of different countries, regions and fuels over the coming decades."

Maria van der Hoeven, Executive Director, IEA

As the world's population approaches 9 billion people in 2040, we are challenged to not just meet basic needs, but also to improve living standards throughout the world

In our view, meeting this challenge will require an increase in energy use worldwide of about 35 percent The scale of the challenge may seem daunting, but history demonstrates a remarkable ability of people to overcome hurdles to progress Fortunately, the world not only holds a vast and diverse array of energy resources, but we also possess increasingly advanced technologies that can safely and reliably supply this energy

Another important aspect to improving standards of living concerns the environment Perhaps most urgent are needs in many areas of the world for cleaner air and cleaner water Nations around the world also need to continue to address risks associated with rising greenhouse gas (GHG) emissions We expect advanced technologies and lower carbon fuels will help energy-related CO_2 emissions plateau around 2030

In pondering our *Outlook* to 2040, we recognize that people's lives and those of their children are being transformed by access to energy and technology Going forward, we expect people everywhere will continue to invent, innovate, work and deliver practical solutions to build a brighter future Now, as always, that path to progress will be powered by human ingenuity and energy

3 hours

Today, in the United States, it takes less than three hours to produce 100 bushels of wheat, compared to 50 hours a century ago.

Global fundamentals

Energy is about people — individuals and societies using electricity, transportation fuels and other energy to make life better. As economies and populations grow, and as living standards improve for billions of people, the need for energy will continue to rise. Even with significant efficiency gains, global energy demand is projected to rise by about 35 percent from 2010 to 2040.

"Energy is a necessary input to improving quality of life and economic growth. Access to reliable and affordable energy sources can reduce poverty, improve public health, and improve living standards in myriad ways."

Columbia University's Center on Global Energy Policy

Population and progress

People and economies need energy to grow and thrive

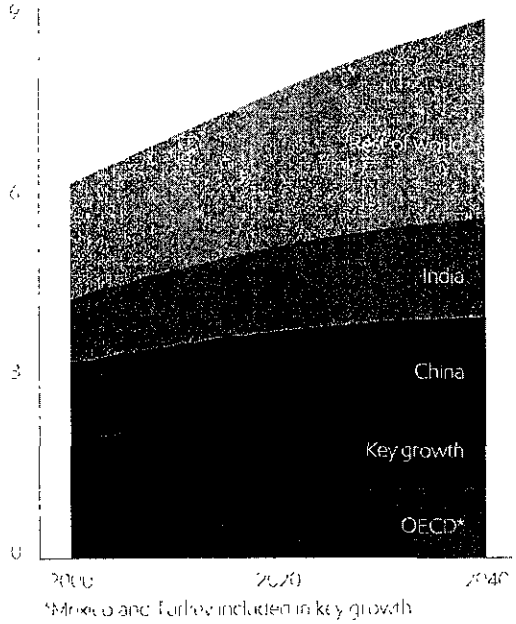
From 2010 to 2040, the world's population is projected to rise from 7 billion to nearly 9 billion, and the global economy will more than double Over that same period, global energy demand is likely to rise by about 35 percent.

But our world's energy landscape is always more complex than it seems at first glance.

Even a casual assessment reveals that the world is not one homogenous place, but rather many individual countries and regions, each at a different stage of economic and energy development. For example, economic growth in Organisation for Economic Co-operation and Development (OECD) countries will likely average 2.0 percent annually, while non-OECD countries are expected to average 4.4 percent a year through 2040. This growth in gross domestic product (GDP) means improved quality of life for billions of people.

Global population

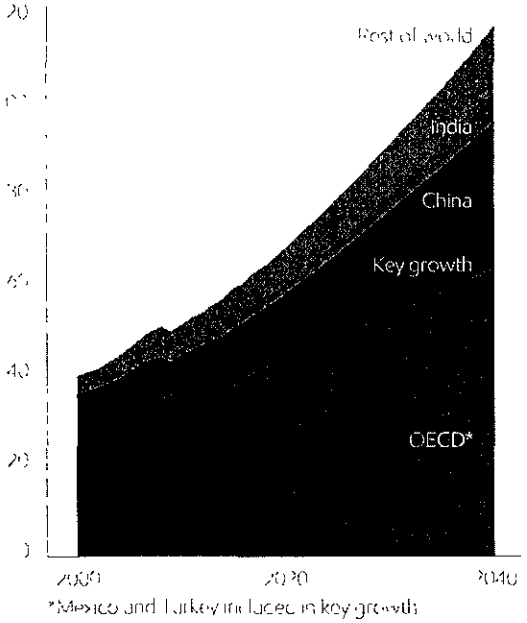
Billions of people



*Mexico and Turkey included in key growth

Economic output (GDP)

Trillions of 2005 dollars



*Mexico and Turkey included in key growth

80 percent

Globally, GDP per capita will grow by about 80% from 2010 to 2040.

We can categorize our world in broad groups:

The United States and other OECD member nations This group already has relatively high living standards, urbanization levels and per capita energy use reflecting well-advanced economies. As OECD economies continue to expand, improvements to energy efficiency and slower population growth will combine to keep overall energy demand essentially flat in these countries through 2040.

China and India. These two countries are the world's most populated, and each is in the process of making broad gains in living standards. By 2040, nine of the world's 20 most populous cities — and one of every three people on the planet — will be in China or India. Together these nations account for half of the projected growth in global energy demand.

China has been a dominant force in energy trends over the past 20 years as its economy grew and living standards rose. China's energy demand will continue to grow substantially, but by 2040, China will have a much more mature economy, with energy demand growth — as well as economic and population growth — slowing to a more temperate pace. India will continue to experience strong growth, with its large population realizing significant gains in living standards. Since 2005, India has surpassed Japan and Russia to become the third largest energy consumer behind China and the United States – a position it will likely retain through 2040.

Key growth countries and other non-OECD. Economic progress will drive demand for energy in other non-OECD countries, where many more people will be able to afford some or all of the hallmarks of a middle class lifestyle, such as better homes, air conditioning, appliances, personal vehicles and computers. The biggest gains should be seen in 10 key growth countries: Brazil, Indonesia, Saudi Arabia, Iran, South Africa, Nigeria, Thailand, Egypt, Mexico and Turkey. By 2040, these 10 countries will have energy demand approaching the level of China. Although Mexico and Turkey are OECD members, their significant population, economic and energy demand growth closely resemble that of the other countries in this group.

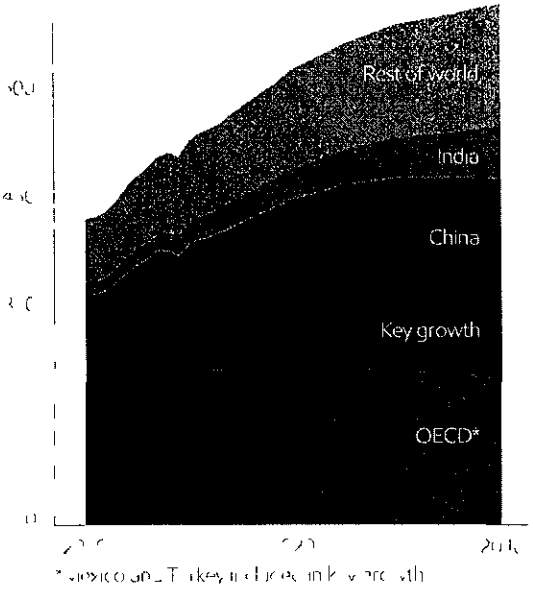
Growing urbanization drives energy demand

As we have seen in developed economies over the previous century, one important fundamental of energy demand is the migration of populations from rural to urban areas. Naturally, the expansion of urban infrastructure creates demand for iron, steel, cement and other industrial goods that are energy intensive.

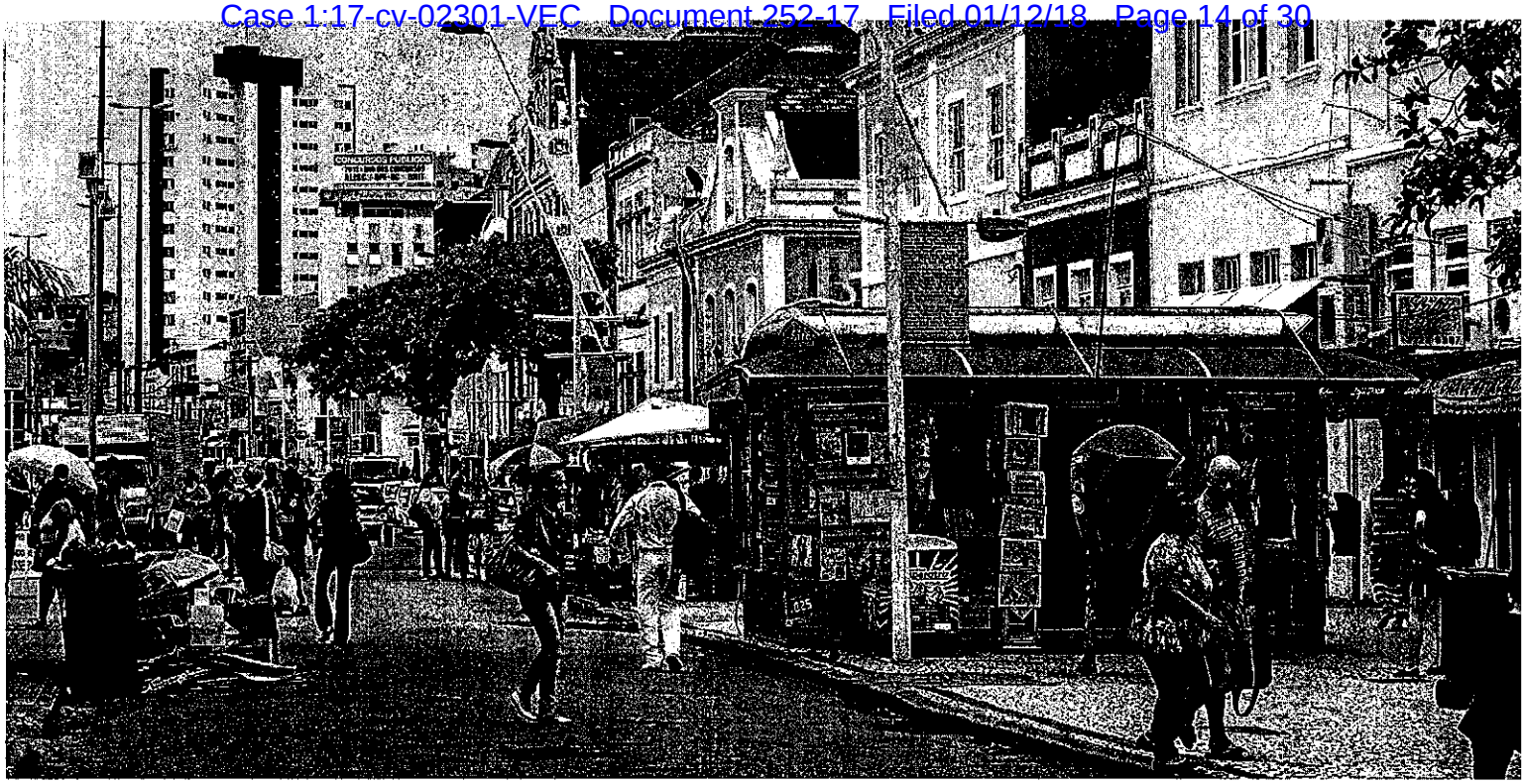
Urbanization also tends to drive energy demand higher for several other reasons. Average urban income levels are higher than in rural areas, energy intense manufacturing and other industries cluster around cities, and in developing economies, the number of people per household is usually lower in urban settings, which leads to a higher number of actual households.

Global energy demand

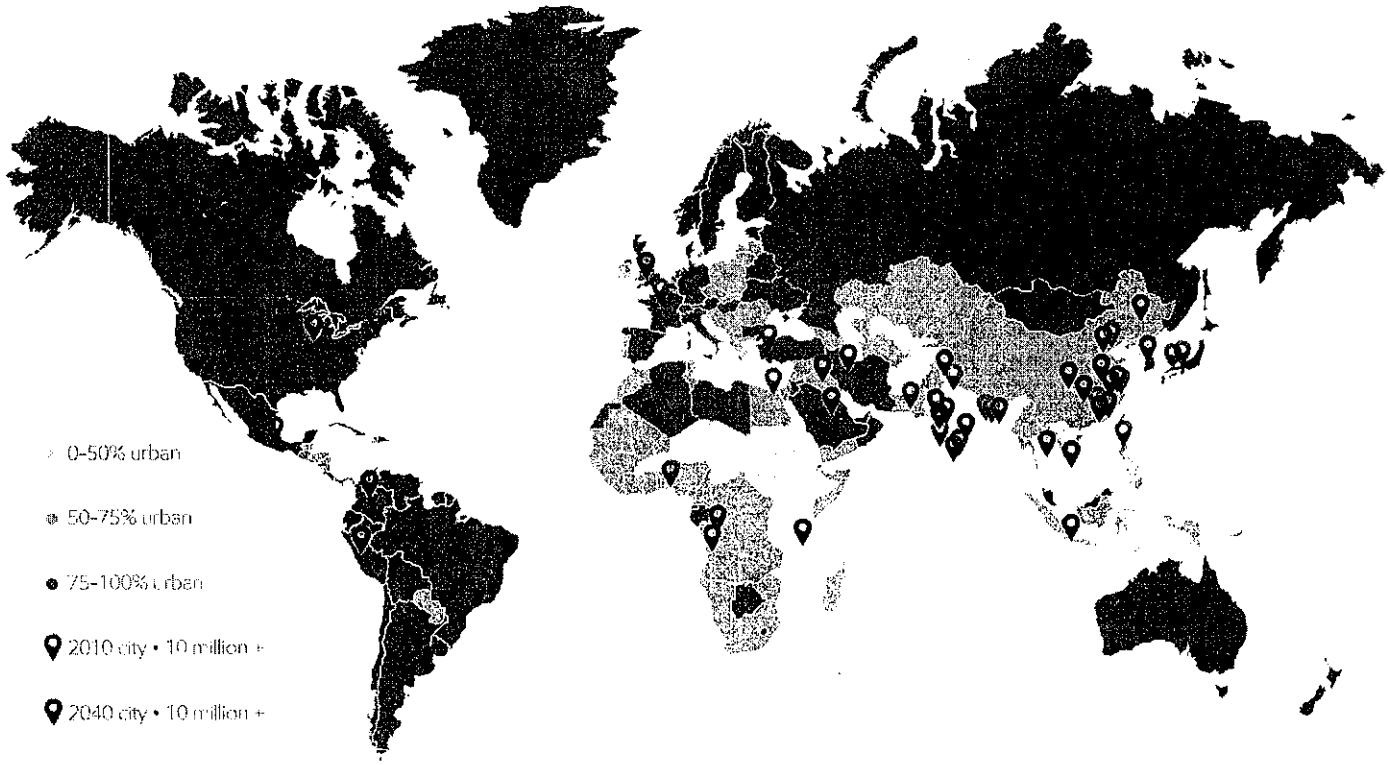
Quadrillion BTUs



*Mexico and Turkey included in key growth



Global urbanization and major cities in 2040



Source: United Nations and ExxonMobil estimates

All this, combined with an expanding middle class, leads to a higher penetration of consumer electronics, personal vehicles, and other demands for energy

By 2040, the proportion of people living in urban settings in non OECD countries is projected to rise to about 60 percent, up from 45 percent in 2010 and 30 percent in 1980 OECD urbanization rates are likely to rise to 85 percent, from about 75 percent

Even with all of this progress, the growth in global demand for energy is actually slowing down. While the projected rise in energy demand from 2010 to 2040 is substantial, it is only about 80 percent of the growth seen from 1980 to 2010 This is all the more remarkable because the growth in economic output from 2010 to 2040 will be more than double the growth from 1980 to 2010 This means that the world is continuing to become more efficient as prosperity advances

This shift is due in part to advances in technology For example, fuel demand for light-duty vehicles is expected to be relatively flat through 2040 as advanced cars with better fuel economy enter the market

Energy efficiency works in every aspect of the world's economy to offset demand growth. Its importance is illustrated by recognizing that the projected rise in population and GDP through 2040 could have caused global energy demand to rise by more than 100 percent But much of that demand increase will be avoided because of advances in energy efficiency across all sectors

Another reason for the slowdown in global energy demand growth is the fact that over time, an increasing percentage of the world's population – including OECD countries and China – will already have achieved a relatively high standard of living, with relatively stable energy needs

***While our economies become more efficient,* commercial activities and consumer preferences will still drive global energy needs higher.** While worldwide demand for energy that people use directly (in cars and homes) will grow through 2040, there will be even larger increases in demand for energy that serves people indirectly through the broader economy These needs include fuels for manufacturing, trucking and shipping, as well as energy for power generation to support industrial customers, computers and telecommunications

All energy sources should be pursued to meet global demand through 2040 New technologies will continue to expand the world's energy options One prominent example is the rapid growth in the production of tight oil and shale gas that has revitalized North American energy production

While oil will remain the fuel of choice for transportation, natural gas is emerging strongly as a growing fuel of choice for other sectors. Utilities and other consumers are turning to this abundant, affordable and clean-burning fuel Half of the growth in demand for natural gas is being driven by the need for electricity around the world, which is expected to increase by 90 percent from 2010 to 2040 Nuclear and renewable energy will also grow to support electricity needs

500 quadrillion

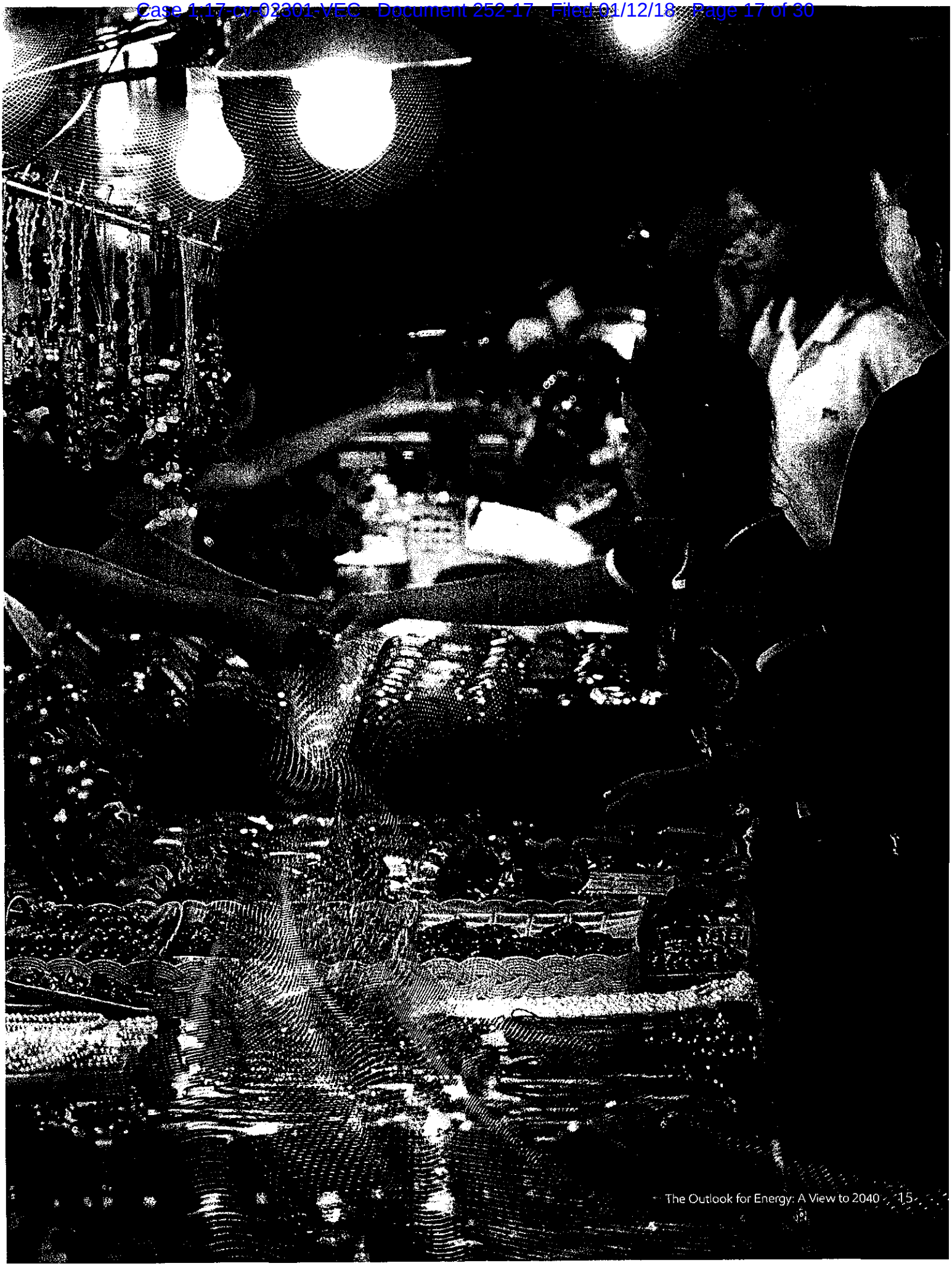
People around the world will help generate energy savings of about 500 quadrillion BTUs in 2040.

Energy demand

People use energy for home, work and travel. People also use energy indirectly in ways they may not think about — by purchasing goods that took energy to manufacture, package and ship, by making use of hospitals, schools and public safety services, or simply by using the Internet. Through 2040, the largest source of energy demand will be for fuels used to make electricity.

"The great energy challenge of the future, which will test all sources, is meeting the demand growth of a growing world."

Daniel Yergin, Vice Chairman, IHS



Residential/Commercial

Energy use rises with improved living standards

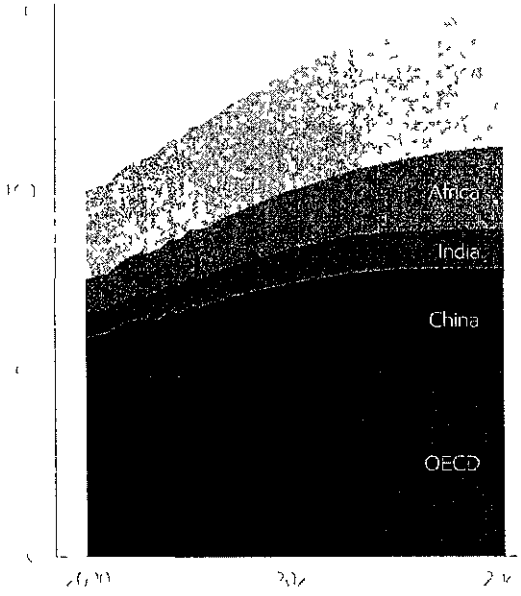
Three significant drivers of global energy trends — increasing population urbanization and rising living standards — are clearly evident in the residential and commercial sectors

The majority of the growth in energy demand used in buildings is expected to come from the residential sector although energy for commercial and other public facilities will actually grow at a faster pace These energy needs reflect rising populations as well as an ongoing shift of people from rural to urban settings This shift generally leads to greater energy use in homes and other buildings for cooking, indoor temperature control lighting, appliances and other equipment (e g , computer/information systems)

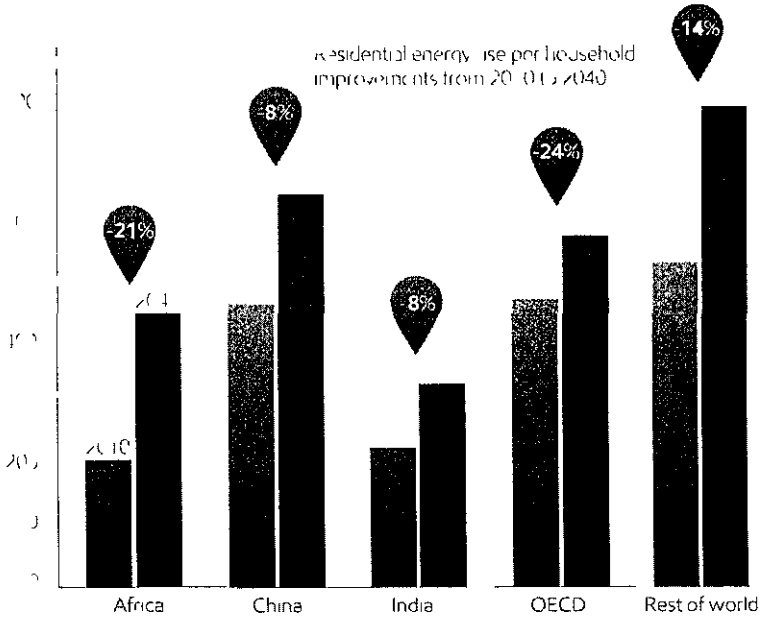
Demand in the residential sector is driven by two factors the number of households and the amount of energy used per household (energy intensity) The total number of households in the world will rise significantly in coming decades we expect an increase of close to 50 percent, from **1 9 billion households in 2010 to 2.8 billion by 2040,** due to increasing population and urbanization

At the same time, urbanization and rising incomes — particularly in China, India and the other 10 key growth countries — are driving demand for energy not just for basic needs but also modern uses such as

Res/Comm demand by region



Households by region



Energy and the city: Urbanization and its impact on residential energy trends

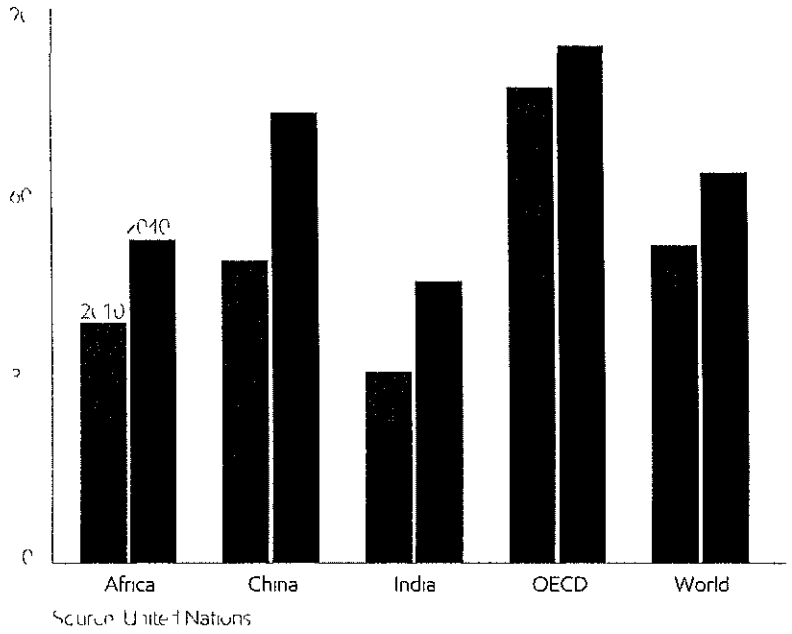
The United States and other highly urbanized economies have reached a point where growth in energy use in homes is flattening Improvements to efficiency — better windows, for example — are actually beginning to produce a net decline in residential energy demand But many other countries are in earlier stages of urbanization

China. In 1990, only about 25 percent of the people in China lived in urban areas, by 2010, that number had grown close to 50 percent Over that time, residential electricity use per capita had grown about 20 times By 2040, China's urbanization rate is projected to reach about 75 percent but its growth in residential energy demand is expected to begin leveling off

India and Africa. In India, the proportion of people living in urban areas is expected to rise from 30 percent in 2010 to 45 percent in 2040 Africa's urbanization rate is expected to rise from about 40 percent to 50 percent Demand for energy for residential purposes is expected to grow by about 35 percent in India and 70 percent in Africa over the *Outlook* period

Urbanization ratio

Percent



Source United Nations

Urbanization brings a shift away from traditional fuels. In India and Africa, millions of people still get a significant amount of energy from biomass fuels like wood Growth in the use of these fuels is slowing in favor of modern energy such as natural gas, liquefied petroleum gas (LPG) and electricity Modern fuels burn much cleaner, and are far more efficient When used for cooking, modern fuels such as natural gas and LPG are about four times more efficient than wood The IEA estimates that 2 6 billion people, mostly in Africa and developing Asia, lack access to modern cooking fuels

air conditioning, appliances and electronics In rural China there are only 16 air conditioners for every 100 households in urban areas that ratio is 112 pe 100

Much of the underlying growth in residential energy demand however will be offset by the fact that **household energy use continues to reflect efficiency gains** For example, according to the Energy Information Administration (EIA), U S homes built after 2000 consume about the same amount of energy as older homes despite being on average 30 percent larger

Globally, residential energy intensity is projected to fall by about 15 percent over the *Outlook* period as homes become better insulated and make greater use of energy saving lighting and appliances

Accounting for all of these factors **energy demand in the residential sector is expected to rise by about 20 percent** from 2010 to 2040, with growth tapering after around 2030 as China's urbanization begins to slow and residential energy demand in mature OECD economies actually declines

"The 'energy-poor' suffer the health consequences of inefficient combustion of solid fuels in inadequately ventilated buildings, as well as the economic consequences of insufficient power for productive income-generating activities and for other basic services such as health and education. In particular, women and girls in the developing world are disproportionately affected in this regard."

United Nations *Energy for a Sustainable Future*

Rising living standards and urbanization will also enable many people to change the types of fuel they use in their homes. The world will see a **continued shift toward electricity and natural gas and away from biomass fuels,** like wood, which today still account for approximately 40 percent of global residential energy needs.

By 2040, electricity will likely account for around one-third of residential energy demand, compared to 20 percent in 2010. Another fuel source that should see large growth is natural gas.

The shift away from less-efficient fuels like wood in the residential sector will help people in developing countries improve their quality of life without necessarily increasing their overall energy use.

In fact, one of the great challenges over the *Outlook* period will be extending access to the 1.3 billion people who are without electricity and 2.6 billion people who lack modern cooking facilities.

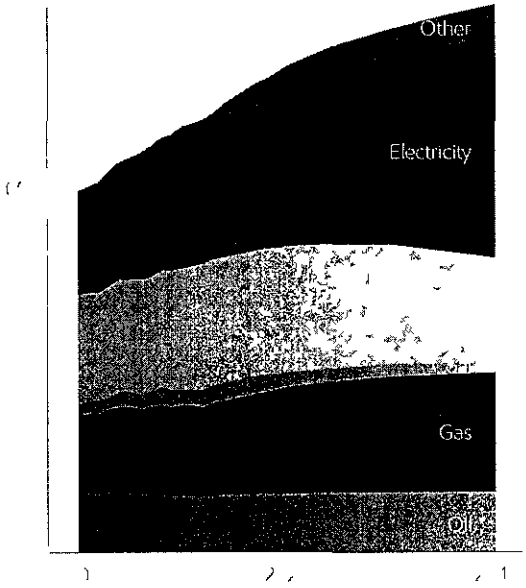
Significant trends are also seen in the commercial sector, which includes energy used in offices, retail stores, hospitals and schools. Globally, commercial demand for energy is rising, with growth projected to gradually slow toward 2040. In addition, a greater share of commercial energy use is likely to come from electricity rather than the direct use of fuels such as oil or coal. Commercial demand should rise by about 50 percent from 2010 to 2040.

Combined, total residential and commercial energy demand is projected to rise by around 30 percent from 2010 to 2040.

The residential/commercial sector is a growing contributor to electricity demand, ultimately leading to greater demand for the fuels used by utilities and other power generators.

Res/Comm demand by fuel

Quadrillion BTUs



90 percent

Residential/commercial electricity demand will increase by close to 90 percent over the *Outlook* period.

Transportation

The "fleet" expands as many more people can afford cars

Light-duty vehicles — the cars, pickup trucks and sport utility vehicles (SUVs) that people use in their daily lives — represent one of the most visible demand sectors

Demand for fuel for these personal vehicles, which is met nearly exclusively from oil, is expected to rise slowly over the next decade before gradually trending downward over the remainder of the *Outlook* period

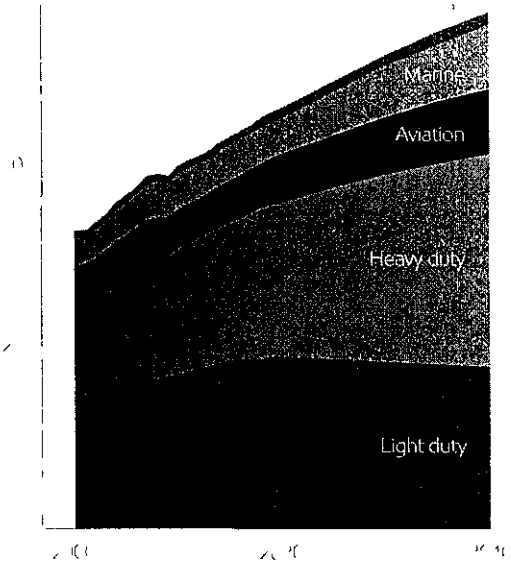
This shift in demand won't be because of fewer vehicles in the world In fact, from 2010 to 2040, the number of light duty vehicles **— the global "fleet" — is expected to more than double from about 800 million to about 1.7 billion**, as the world's population grows and more people in developing economies are able to afford cars

In 2010, about 75 percent of the world's vehicles were in OECD countries However, looking ahead, about 80 percent of the growth in the global fleet will come from non-OECD countries

For example, it is estimated that in 2010 China had only about five light-duty vehicles per 100 people, while India had fewer than two per 100 people, this compares to about 75 vehicles for every 100 people in the United States However, by 2040, China and India are expected to increase their levels by more than 500 percent In fact, by 2030, we expect China will have surpassed the United States as the country with the largest number of personal vehicles, even though China's vehicles per capita will be about one-third the level of the United States at that time

Transportation demand by sector

Millions of oil equivalent barrels per day



Significant growth will also come from countries in Latin America, Africa and the Middle East, which together will account for about 15 percent of the growth in the global fleet Collectively, these countries are likely to increase their vehicle ownership by about 80 percent as their total number of cars nearly triples

Importantly, the increase in the number of light duty vehicles in the world through 2040 will likely be nearly offset by the fact that **the vehicles themselves will be far more fuel efficient** As a result, the average efficiency of the world's vehicle fleet is

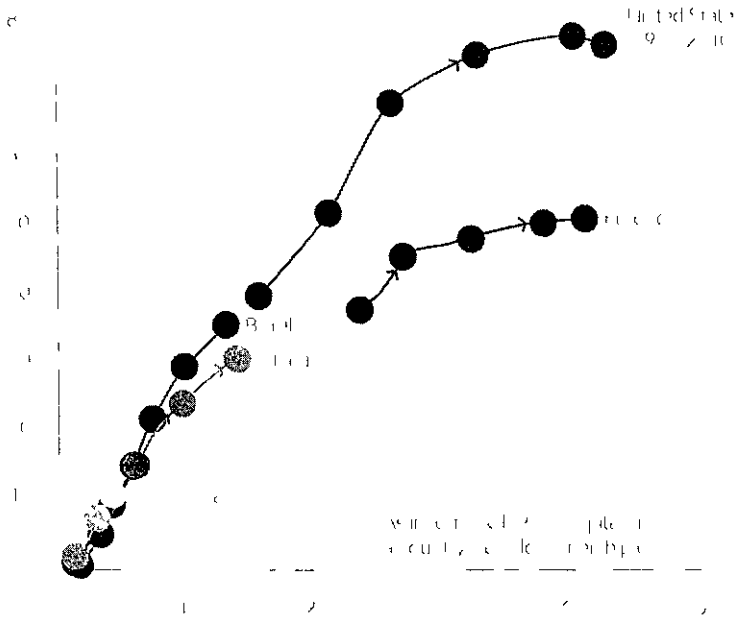
projected to reach about 46 mpg (about 5 1 liters per 100 km) compared to 24 mpg (9 8 liters per 100 km) in 2010

This unprecedented improvement in global fuel economy is expected to reflect a surge in hybrid vehicle sales Hybrids, which combine an internal combustion engine and an electric motor, are expected to account for about half of global new-car sales by 2040, as they become increasingly cost competitive compared to conventional vehicles

By 2040, hybrids are expected to account for about 35 percent of the global light-duty vehicle fleet, up from less than 1 percent in 2010. Over the same period electric and plug-in vehicles are expected to grow to about 70 million cars, or less than 5 percent of the total fleet This slower growth is attributed to the relatively higher cost of the vehicles driven by the cost of batteries

Vehicle penetration 2000 to 2040

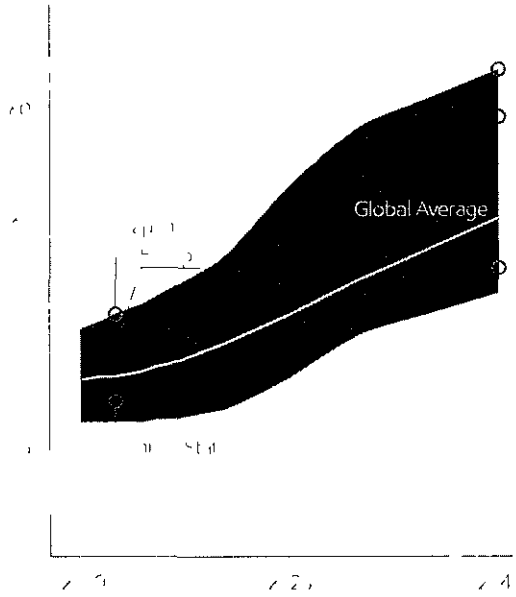
Cars per 1 000 people



GDP per capita thousands of 2005 dollars

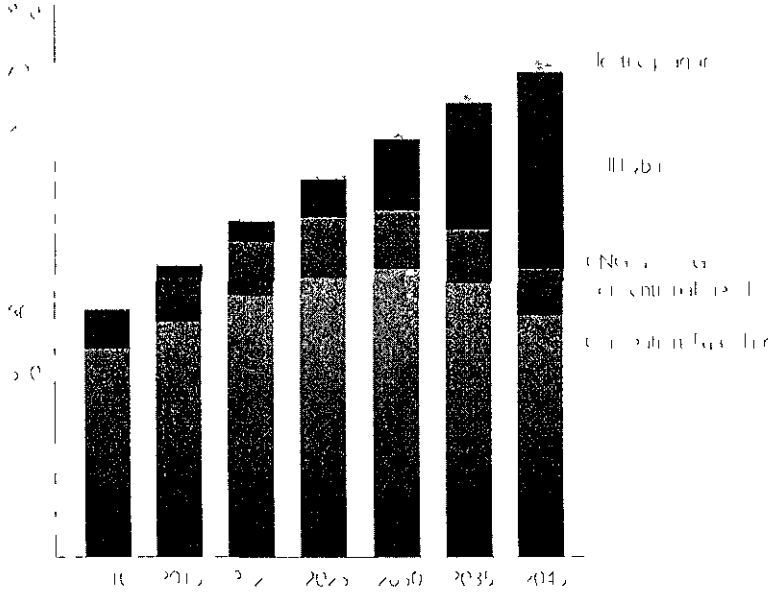
Range of average vehicle efficiency

On-road miles per gallon



Light-duty fleet by type

Million cars



Demand climbing for commercial transportation fuels

While global energy demand for personal transportation is expected to be relatively flat over the next few decades demand for energy for commercial transportation — trucks planes ships and trains — will continue to grow significantly as economies expand and evolve

Global demand for energy for commercial transportation is expected to rise by 70 percent from 2010 to 2040 driven by the projected increase in economic activity and the associated increase in movement of goods and freight

Nearly every country will see an increase in commercial transportation energy demand through 2040 but China will see the largest increase — more than 4 million oil equivalent barrels per day In 2010 China trailed Europe, the United States and the Middle East in terms of energy demand for commercial transportation By 2040 China is expected to be in the No 1 spot India and Brazil will also see large increases with India having the highest growth rate globally

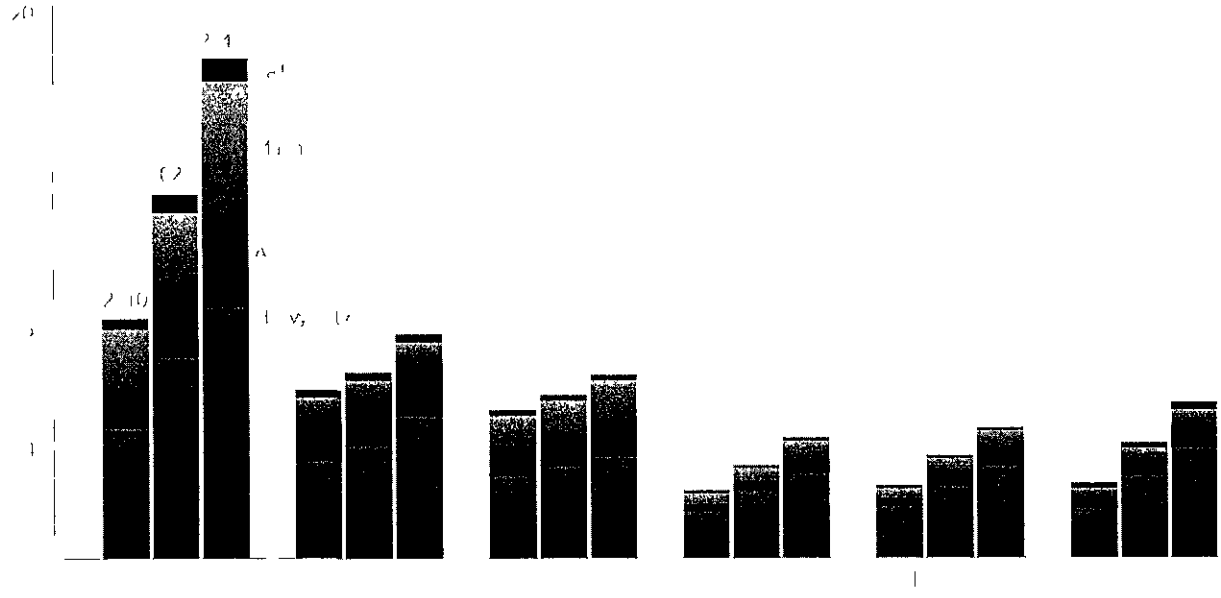
75 percent

Demand for diesel and jet fuel is expected to increase by 75 percent from 2010 to 2040.

The increase in energy demand in the commercial transportation sector is likely to be partially offset by significant improvements to fuel efficiency For example more efficient truck, aviation marine and train fleets along with logistical system improvements such as intermodal shipping, will help slow the growth in transportation energy demand in many countries

The largest driver in commercial transportation energy demand will come from heavy duty vehicles such as trucks and buses Demand for fuel for heavy duty vehicles is projected to rise by about 70 percent, and account for about 60 percent of the total increase In fact by 2040 the world will be using about the same amount of energy in heavy duty vehicles as the total energy demand in all of Africa today

Commercial transportation demand by region



Over the next few decades, we expect the mix of fuels used for transportation to continue to evolve

Liquid fuels — gasoline, diesel, jet fuel and fuel oil — will remain the energy of choice for most types of transportation, because they offer a unique combination of affordability, availability, portability and high energy density

We expect global demand for gasoline (including ethanol) to be relatively flat from 2010 to 2040, largely because cars and other light-duty vehicles will become much more efficient. On the other hand, demand for diesel (including biodiesel) will grow sharply — by about 75 percent — to power the rise in activity in trucks and other commercial transportation. Diesel will also play a more significant role in the marine sector in the latter half of the *Outlook* period in response to stricter marine emissions standards. Demand for jet fuel will also grow close to 75 percent.

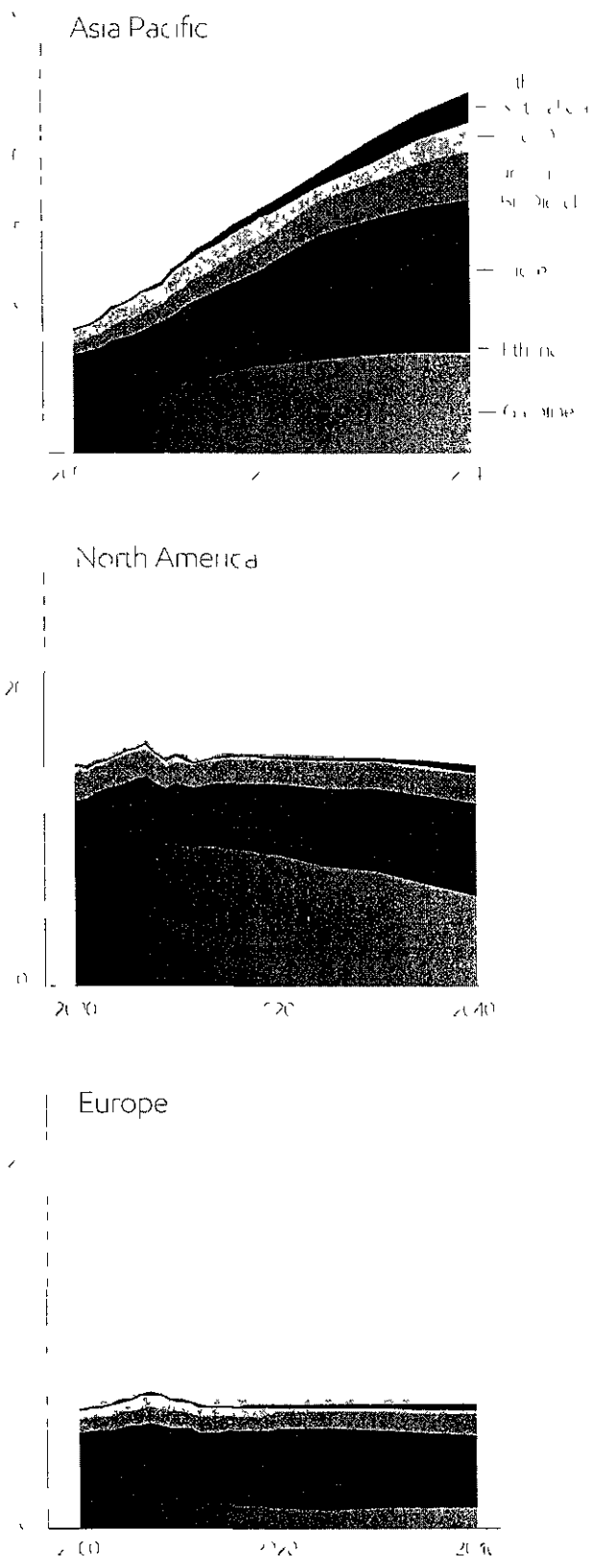
Natural gas is likely to grow in use as a transportation fuel, with its attractiveness enhanced by its relatively low emissions and its affordability relative to oil in many parts of the world.

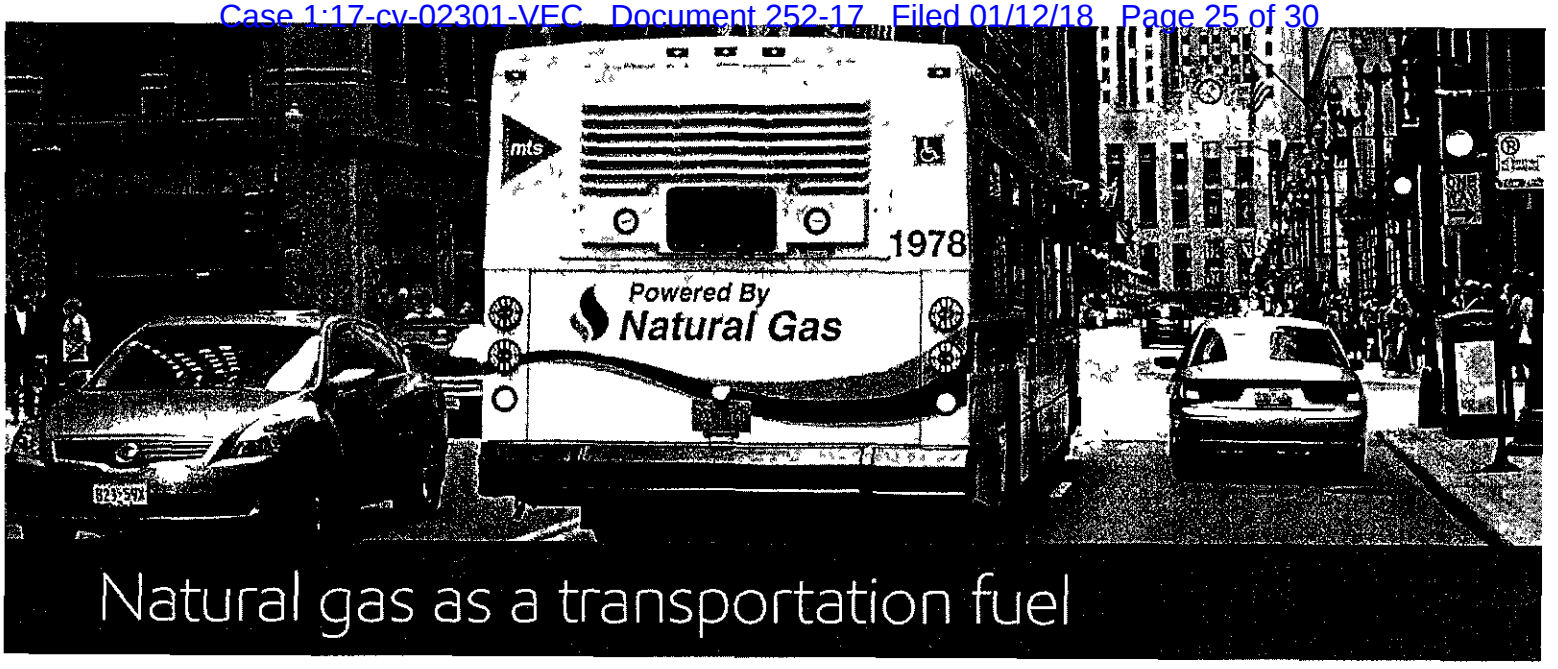
We expect that growth in natural gas as a transportation fuel will be seen mainly in commercial vehicles — mostly fleet trucks that can run on compressed natural gas (CNG) and long-haul trucks that can use liquefied natural gas (LNG). (See next page.) Lower-sulphur fuel regulations for marine vessels expected over the next decade may attract some shipping companies to invest in LNG capability.

In 2010, natural gas accounted for about 1 percent of all transportation fuels, with about 45 percent of that demand concentrated in Asia Pacific. By 2040 the share of natural gas will likely rise to 5 percent, with growth driven by Asia Pacific and North America.

Transportation fuel mix by region

Million oil-equivalent barrels per day





Natural gas as a transportation fuel

The rise in production of abundant natural gas in North America and other regions has led to heightened interest in natural gas as a transportation fuel The outlook for growth in natural gas in the transportation sector *differs widely by mode of transportation* and by region

Around the world, the biggest interest in natural gas as a transportation fuel is coming from owners of heavy-duty commercial vehicles Globally and particularly in the Asia Pacific region compressed natural gas (CNG) is already a popular fuel choice for transit buses and delivery and refuse truck fleets In the United States, equipping a truck to run on CNG costs about $30,000 more than a diesel truck, but potential fuel cost savings could enable a five-year payback time

Long-haul trucks may favor liquefied natural gas (LNG) because of its higher energy density than CNG and the ability to travel up to 750 miles between fill-ups while pulling heavy loads Fuel cost savings could recoup *the higher investment costs for an LNG* truck ($70,000 to $90,000 compared to diesel) within about three years

In terms of light-duty passenger vehicles like cars and SUVs several countries currently have conditions that favor CNG vehicles such as air pollution concerns in large urban areas or an ample supply of natural gas relative to refined oil products These include Argentina, Brazil, Iran, Pakistan and India, which together account for around 80 percent of the global CNG passenger fleet

However, ExxonMobil expects that outside of these countries, growth in natural gas as a transportation fuel for light-duty vehicles will be limited While natural gas prices may be lower than gasoline prices fuel cost is just one dimension of a consumer's dec sion about which vehicle to purchase Other dimensions include the fact that natural gas vehicles are more expensive

In the United States today, CNG cars can cost about $8,000 more than comparable gasoline powered cars CNG vehicles have fuel economy similar to conventional gasoline engines, so a typical driver would take more than five years to recoup the extra purchase cost

Consumers looking to save fuel costs are *more likely to choose hybrid vehicles*, which are slightly more expensive than conventional vehicles but have far higher fuel economy CNG vehicles also have a shorter driving range — up to 40 percent less than comparable vehicles using liquid fuels — due to CNG's lower energy density and the fact that an adequately sized fuel tank is sometimes challenging to fit into a car

In all sectors and regions, development of a fueling infrastructure is one of the largest hurdles to natural gas vehicle (NGV) penetration. Fleets of vehicles that return to base each day can economically benefit from a single highly utilized CNG fueling *station Trucks that travel on established* long haul corridors also have the potential for highly utilized, and therefore economic, LNG fueling stations

Most challenging is building the fueling infrastructure for passenger vehicles, including a large network of easily accessible refueling stations, particularly because of the shorter driving range of NGVs In the United States, only about 1 percent of fueling stations are equipped for natural gas Home refueling is an option, but the equipment cost can be as high as $4,000

Ultimately consumers — individuals and *businesses — will assess their needs and the* costs of various options when deciding if natural gas as a transportation fuel is right for them Markets will determine which transportation sectors can benefit most from natural gas and a fueling infrastructure will develop around those markets

Industrial

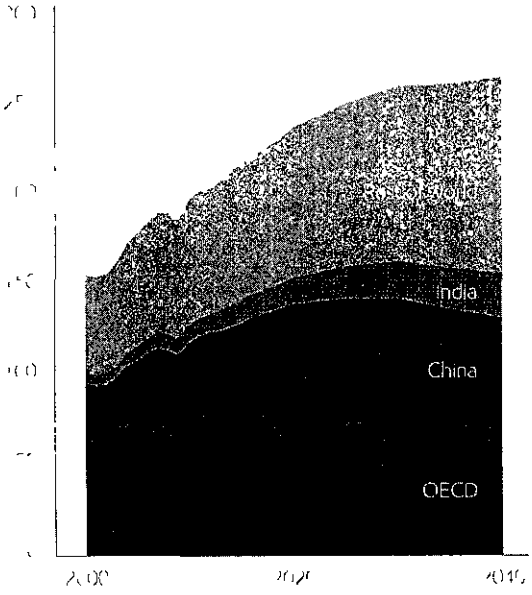
Urbanization helps fuel industrial demand

The industrial sector is a major consumer of energy accounting for about half of all the electricity consumed around the world – and about 30 percent of primary energy use

Urbanization and rising living standards continue to drive industrial demand for energy The expansion of urban infrastructure creates new demand for steel, cement and other energy-intensive industrial goods Growing middle-class populations will also increase demand for consumer goods – appliances, apparel and electronics – that require energy to manufacture

Industrial energy demand by region

Quadrillion BTUs



Urbanization is one reason why **global industrial energy demand is projected to rise by one-third** through 2030, with almost all of the growth concentrated in non-OECD countries Global demand then flattens, however as rising demand in India and other leading growth countries is offset by a major development in the industrial sector **declining industrial demand in China post 2030**

China is the world's largest industrial energy user and is projected to remain so over the *Outlook* period But China's industrial energy demand will likely peak around 2030 reflecting efficiency improvements and the natural maturing of its economy after decades of rapid growth In 2010, China produced almost 50 percent of the world's iron, steel and cement, after 2020, we expect China's market share of these heavy industries to decline as its economy shifts toward higher-value manufacturing and services that have lower energy intensity

By 2040, China's industrial demand is expected to be just 25 percent higher than in 2010, in contrast, Brazil's will be nearly double and India's about 2 1/2 times the 2010 level

"Around the world, more than 300 million people are employed in manufacturing, accounting for some 14 percent of global employment."

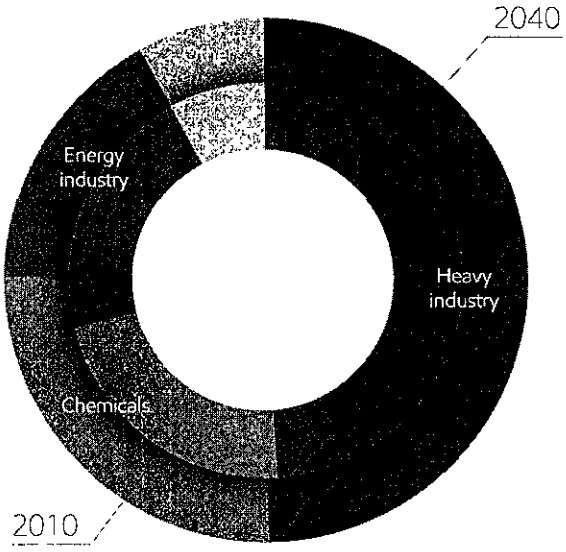
World Economic Forum, Global Agenda Council on Advanced Manufacturing, 2013

Global industrial energy use also is driven by the chemicals sector, where demand for energy is rising about 50 percent faster than overall energy demand. Chemical companies use energy in two ways: as a fuel and as a feedstock to make plastics and other products essential to manufactured goods (see page 27). Demand for these goods – from consumer electronics to medical equipment – goes hand-in-hand with rising living standards. The global production of petrochemicals is expected to more than double from 2010 to 2040. At the same time, fertilizer production will grow by about 25 percent, keeping pace with population growth.

The energy industry itself accounted for about 20 percent of industrial energy demand in 2010, but its share is declining as the industry continues to improve efficiency. More efficient energy extraction and processing, along with reductions in natural gas flaring, are likely to limit the growth in the energy industry's demand to only 30 percent of the total fossil-fuel growth rate.

Industrial energy demand by sector

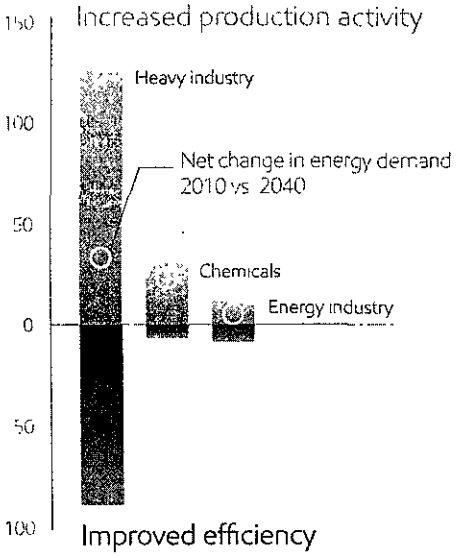
Percent



Industrial efficiency saves energy

Efficiency offsets production growth

Quadrillion BTUs



Industrial demand for energy is a function of production activity – such as the manufacturing of steel, automobiles and chemicals – and energy intensity, or the amount of energy needed to produce each unit of output.

Production activity (yellow bars) is expected to rise with increased urbanization and expanded global prosperity. At the same time, continued improvements in energy efficiency (green bars) are expected to reduce energy intensity. Because of this improved efficiency, growth in industrial energy demand will be well below the growth in global production activity.

For chemicals, energy demand includes both fuel and feedstock. Improvements to energy efficiency can reduce only the fuel portion – about 40 percent of the chemicals sector's energy demand. This is why chemicals' efficiency improvements appear modest relative to the improvements in heavy industry and the energy industry.

"By significant investments in new steelmaking technologies, and through the innovation of the women and men working on the plant floor, America's steel industry has reduced energy intensity per ton of steel shipped by 30 percent since 1990."

American Iron and Steel Institute

Two other elements of the industrial sector are the demand for fuel for agriculture which will rise to support a growing population and growth in asphalt demand for road construction

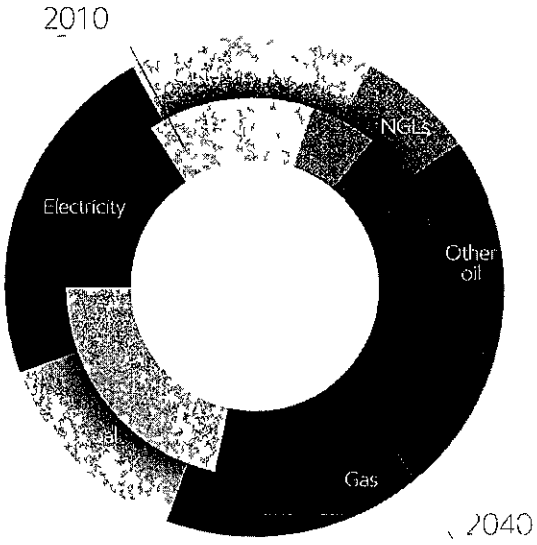
Increased industrial activity is one reason for the projected strong growth in demand for energy for trucks and other forms of commercial transportation through 2040 (see page 21) This is especially true for China, India and other leading growth countries where rising domestic consumption and exports drive robust industrial growth

Through 2040 there are likely to be significant changes in the types of energy used in the industrial sector Growth in unconventional sources of oil and natural gas is **helping the industrial sector shift away from coal** and curb direct CO_2 emissions By 2040 the industrial sector is projected to get only about 15 percent of its direct energy from coal compared to over 20 percent in 2010 At the same time natural gas and electricity are likely to increase their shares of industrial energy

In the chemicals sector rising demand for chemical products will drive increased demand for the liquids that are used as chemical feedstocks oil-based feedstocks like naphtha and natural gas liquids (NGLs) such as ethane

Industrial energy demand by fuel

Percent

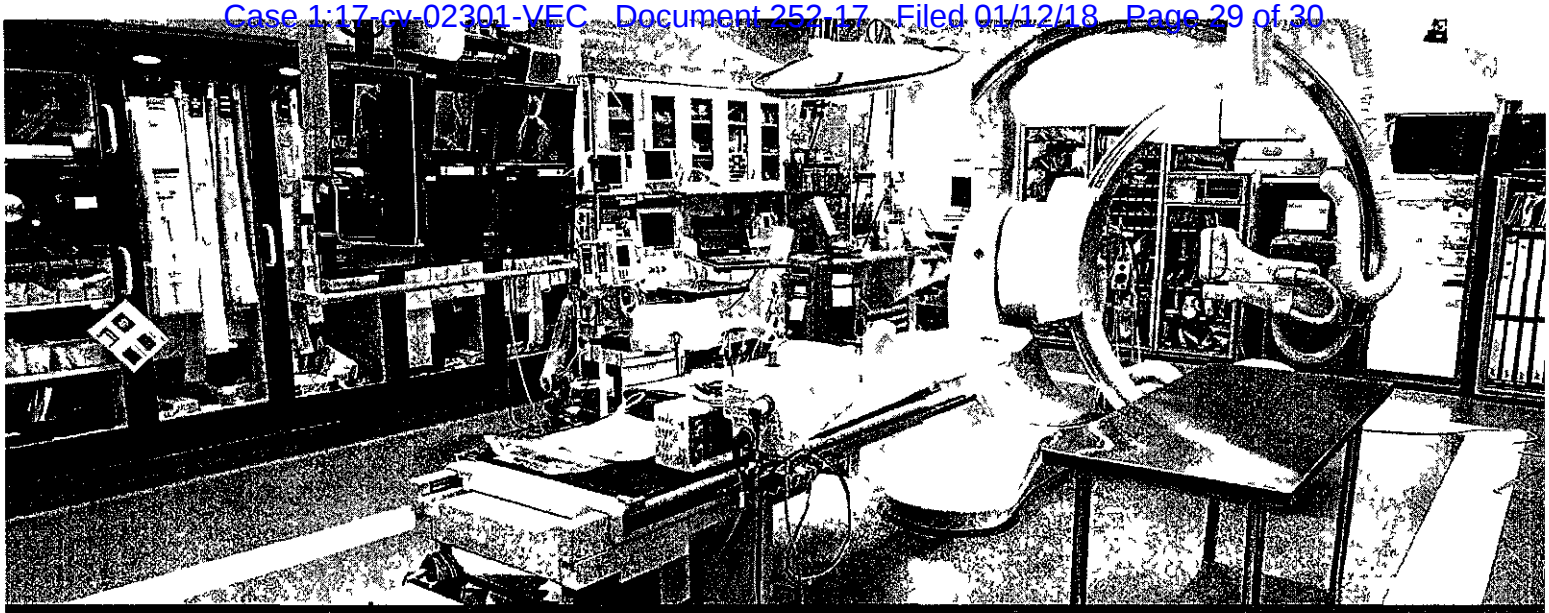


50 percent

Globally, demand for energy from the chemicals sector is rising about 50 percent faster than overall energy demand.

"The transition from agriculture to manufacturing is still the route to higher productivity and rising living standards for developing countries. In advanced economies, manufactured goods stand as the tangible expression of innovation and competitiveness."

McKinsey Global Institute *Manufacturing the future The next era of global growth and innovation* November 2012



Chemicals demand – more than just fuel

One aspect of global oil and natural gas demand that is not always obvious is the link to the plastics and other petrochemicals that are integral to many of today's manufactured products

The chemicals industry is unique among energy consumers because it uses energy in two ways Only about 40 percent of the industry's energy consumption is used for typical purposes like heat and power The remainder is the oil and natural gas liquids (NGLs) that chemical companies use as raw materials to make the building blocks for a wide range of essential products NGLs such as ethane, propane and butane are the valuable byproducts of production from natural gas wells

The products of oil and NGL feedstocks include consumer goods such as plastics, rubber, paint, ink, electronics, pharmaceuticals, packaging and personal care products. They also include industrial products like solvents, resins and coatings And they include manufactured products such as auto parts, furniture, flooring, appliances, medical equipment and surgical supplies Natural gas itself can also be a feedstock for products such as fertilizers

At a chemical plant, steam cracking is one of the main processes used to turn feedstocks into intermediate chemical products such as ethylene and propylene, which are further processed to form plastics and other end-use products About 70 to 80 percent of the energy consumed in steam cracking is due to the raw materials that are not combusted as fuels but rather transformed into other materials

Rising natural gas production, particularly in North America, has reshaped the chemicals industry by shifting the economics of chemical production in favor of North American manufacturers Aside from the Middle East, North America is the only region of the world where most steam cracking facilities are designed to use NGLs rather than the more expensive oil-based feedstocks used in Europe and Asia Pacific

The twofold advantage of access to an abundant supply of affordable natural gas (for fuel) and NGLs (for feedstocks) is leading to a resurgence in the North American chemicals industry and positioning the region to help meet rising global demand for chemicals

Energy demand from the chemicals industry is projected to grow faster than the overall growth in energy demand as rising standards of living, particularly by the middle class in developing parts of the world, drive growth for goods made from chemical products

Global chemicals energy demand is expected to rise by about 55 percent from 2010 to 2040, and will account for 35 percent of the growth in the industrial sector Most of the growth in energy demand in the chemicals sector will be for the feedstocks to make manufactured goods, fuel demand will grow more slowly as improvements to efficiency reduce demand growth

Today, natural gas and electricity already account for more than half of the energy used for fuel purposes in chemical plants That percentage will continue to grow over the *Outlook* period, as solid fuels like coal decline over time

Power generation

Power generation is the fastest-growing major demand sector

Only a century ago, electricity was just emerging for general use. It's remarkable then that power generation today is the world's single largest source of energy demand. Worldwide electricity use is projected to increase by 90 percent from 2010 to 2040, with developing countries accounting for the overwhelming majority of that increase.

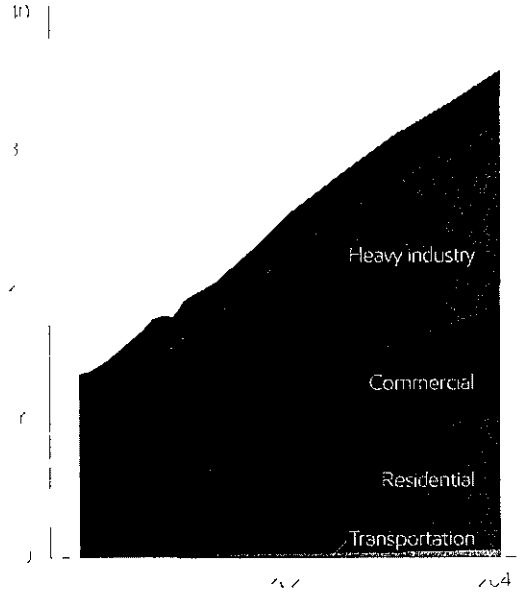
Improved living standards are one reason for this projected growth in electricity demand. Urbanization and rising incomes lead to increases in household and industrial electricity consumption, including wider penetration of electronics, appliances and other modern conveniences. Other contributors to the growth in electricity demand include expanding use of the Internet, wireless communications and other information technologies.

As a result, electricity is expected to capture a significant share of the overall growth in final energy needs in the residential/commercial and industrial sectors, continuing a trend of the last 20 years.

In the residential/commercial sector, electricity is expected to account for about 85 percent of the

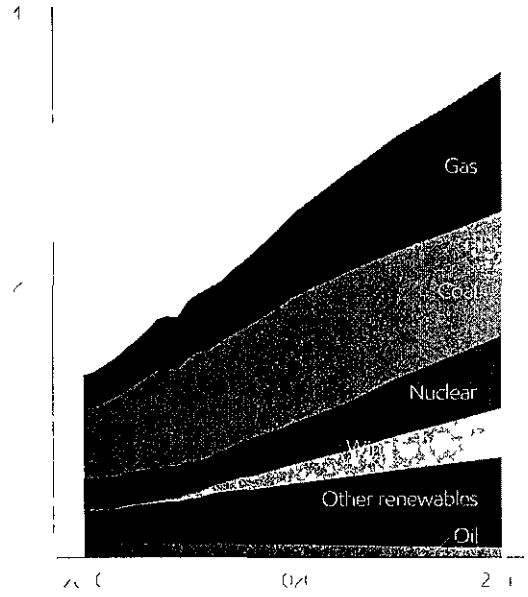
Global electricity demand by sector

Thousands of te a watt h ur



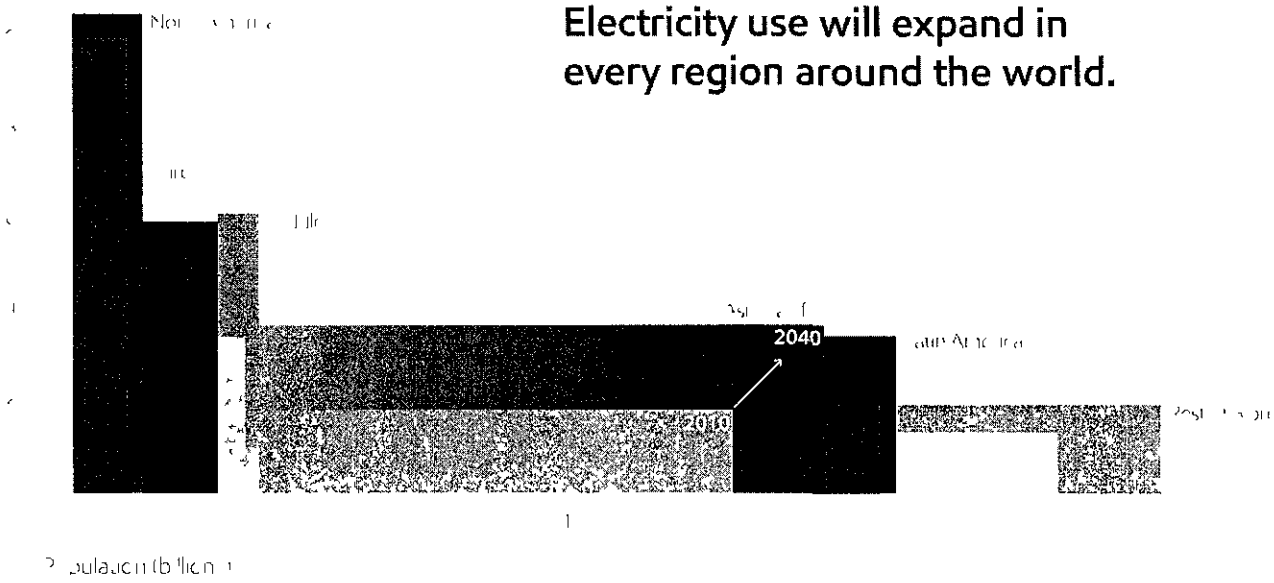
Global electricity supply by fuel

Thousands of te a watt h ur



Electricity use by region

Megawatt hours per capita



Population (billion)

Electricity use will expand in every region around the world.

growth in energy needs and help displace biomass fuels like wood, which are far more labor intensive, much less efficient and potentially harmful to human health

In the industrial sector, electricity usage will likely increase about 90 percent and account for approximately 40 percent of the growth in energy needs

Electricity use for transportation is also an area of significant interest However, while this demand is likely to more than double by 2040, transportation's share of global electricity demand will remain small – at about 2 percent in 2040

The same fundamentals that have contributed to higher electricity usage in OECD countries are increasingly driving higher electricity demand in other parts of the world

For example, the Asia Pacific region's electricity usage per capita is expected to double over the *Outlook* period, after already having risen about 1 5 times over the past 20 years in conjunction with urbanization and rising living standards China and India are expected to play an important role in this growth, with China's per capita electricity consumption more than doubling, and India's nearly quadrupling

Even by 2040 the Asia Pacific region's per capita electricity usage will likely only be about one third of North America's level Electricity use per capita in China is expected to be about half that of the United States, while India is expected to be about 15 percent that of the United States in 2040

1.3 billion

About 1.3 billion people lack access to electricity. Africa accounts for about half of this total, with roughly 55 percent of its population lacking access.

Natural gas to overtake coal as largest source of electricity

Utilities and other power producers around the world can choose from a variety of fuels to make electricity They typically seek to use energy sources and technologies that enable reliable and relatively low-cost power generation while meeting environmental standards Over the *Outlook* period we anticipate that public policies will continue to evolve to place tighter standards and/or higher costs on emissions including CO while also promoting renewables As a result, we expect the power sector to adopt combinations of fuels and technologies that reduce emissions but also raise the cost of electricity

At the same time the sector will also need to manage reliability challenges associated with increasing penetration of intermittent renewables like wind and solar These renewables have a cost which is often overlooked related to reliability for times when the wind is not blowing and the sun is not shining

Fuel input to power generation is projected to rise by more than 50 percent, faster than any other sector, over the *Outlook* period

In 2010 coal was the world's No 1 fuel for power generation accounting for about 45 percent of fuel demand Though coal use will likely increase by about 55 percent in developing countries by 2040 it continues to lose ground in developed countries – primarily to natural gas and renewables such as wind and solar

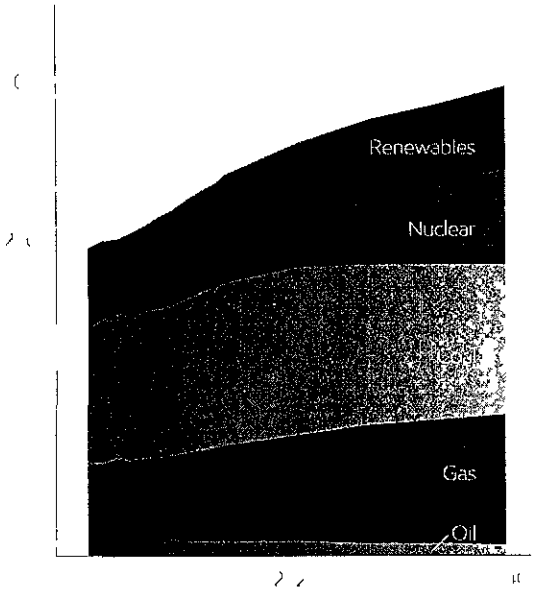
By 2040, demand for natural gas in the power generation sector is expected to rise by close to 80 percent At that time natural gas will be approaching coal as the world's largest energy source for power generation and coal's share will have dropped to about 30 percent Natural gas will actually produce more electricity than coal reflecting efficiency advantages of gas-fired versus coal-fired power plants

Increased local natural gas production in North America and elsewhere, along with expanded international trade is expected to supply the gas for power generation

By 2040 we expect that the use of nuclear power will approximately double and renewables will increase by about 150 percent led by wind and hydroelectric power

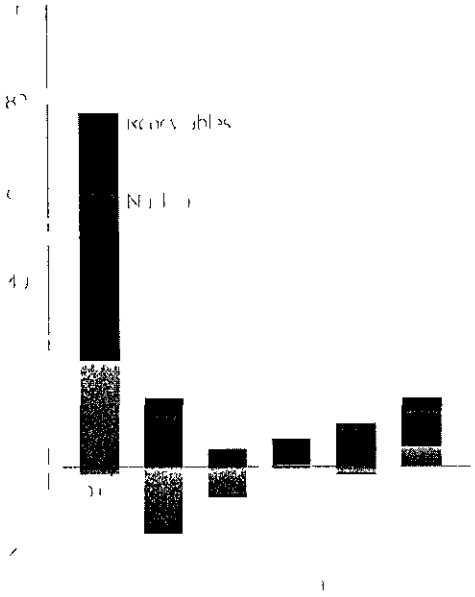
Fuel input to power generation

Quadrillion BTU



Growth in fuel for power generation

2010-2040 quadrillion BTU



The shift away from coal and toward natural gas, nuclear and renewables in the power generation sector is an important contributor to the projected slowdown in global energy-related CO_2 emissions over the *Outlook* period (see page 32)

Trends vary by region In China the world's largest consumer of fuels for power generation demand for coal will likely continue to climb through 2025 but then begin to decline as the country advances its efforts to improve air quality and diversify its energy sources By 2040, coal is likely to account for only about 45 percent of energy used for power generation in China compared to about 85 percent in 2010

The use of coal for power generation will likely continue to rise in many developing countries such as India and much of Southeast Asia

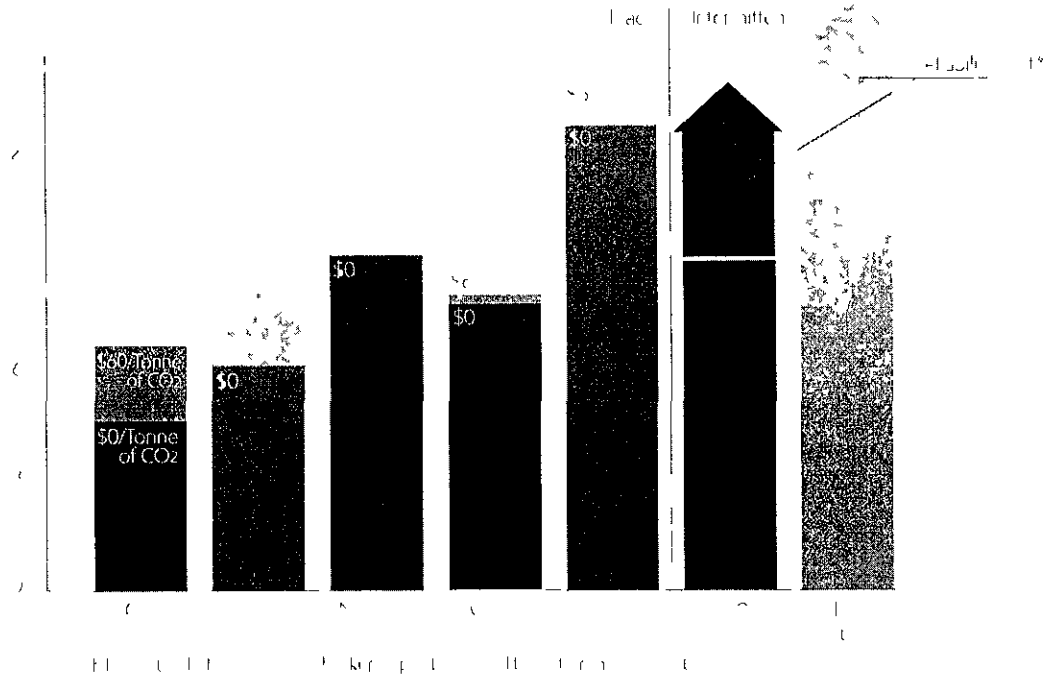
As with any decision about energy usage economics play an important role In the power generation sector, cost-benefit analyses are influenced by policies that seek to reduce CO_2 emissions by effectively imposing a 'cost of carbon' Natural gas and coal are, in general, the lowest cost options for power generation But when a significant cost of carbon is imposed coal-fired plants become less competitive with lower-emission alternatives like natural gas nuclear and renewables

85 percent

About 85 percent of the growth in electricity generation is expected in developing countries

To reduce CO emissions associated with power generation using natural gas and coal one technology often discussed is carbon capture and storage (CCS) Since new gas fired power plants are likely to generate about 50 percent fewer CO emissions than new coal fired plants we expect gas-fired CCS plants will provide lower-cost electricity than coal-fired CCS plants However CCS technology in any case faces substantial economic and practical hurdles, which are expected to continue to limit its significant deployment over the *Outlook* period

Average U S cost of electricity generation in 2030



Emissions

Markets, technology and public policies affect energy choices and emissions

In recent years, many nations have begun to identify and address climate risks associated with rising GHG emissions. Since energy use is a significant contributor to GHG emissions, climate policies that target these emissions are likely to play a significant role in the world's energy future by directly and indirectly affecting people's energy choices.

Since energy use is pervasive in every aspect of life around the world, and since policies to address GHG – and more specifically CO_2 – emissions will tend to raise the cost of energy and related activities, many countries are taking care in structuring both the nature and the pace of GHG policy initiatives. This approach is understandable as a way to manage climate risks associated with GHG emissions while also minimizing related policy impacts on local economies, industrial competitiveness, energy security and the people's ability to pay higher costs.

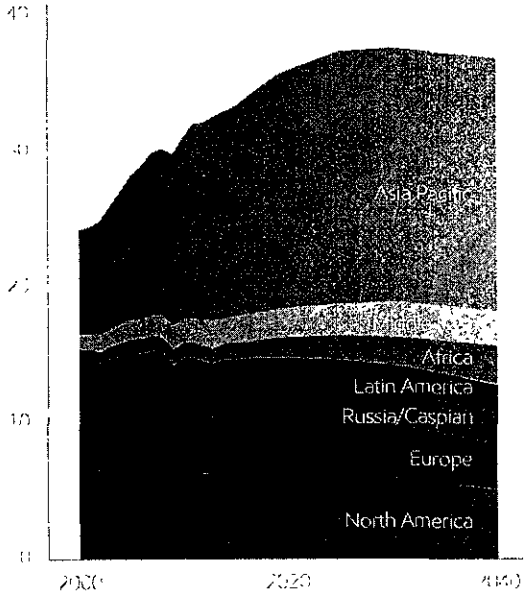
Although climate policies remain uncertain today, for purposes of the *Outlook* to 2040, we assume that governments will continue to gradually adopt a wide variety of more stringent policies to help stem GHG emissions.

Over time, as these policies advance and people respond to rising energy costs, we anticipate greater adoption of energy-saving technologies and practices, as well as lower CO_2 emissions per unit of energy consumed. For example, **in the power generation sector, policies to stem GHG emissions will likely raise electricity costs for consumers, slowing demand growth. Power producers will also seek to utilize more efficient electricity-generating technologies, and shift from coal toward lower-emission fuel sources like natural gas, nuclear and renewables.**

To help model the potential impacts of a broad mosaic of future GHG policies, we use a simple cost of carbon as a proxy mechanism. For example, in most OECD nations, we assume an implied cost of CO_2 emissions that will reach about $80 per tonne in 2040. OECD nations are likely to continue to lead the way in adopting these policies, with developing nations gradually following, led by China

Energy-related CO_2 emissions

Billion tonnes



Greenhouse gas emissions related to energy use are projected to plateau by 2030

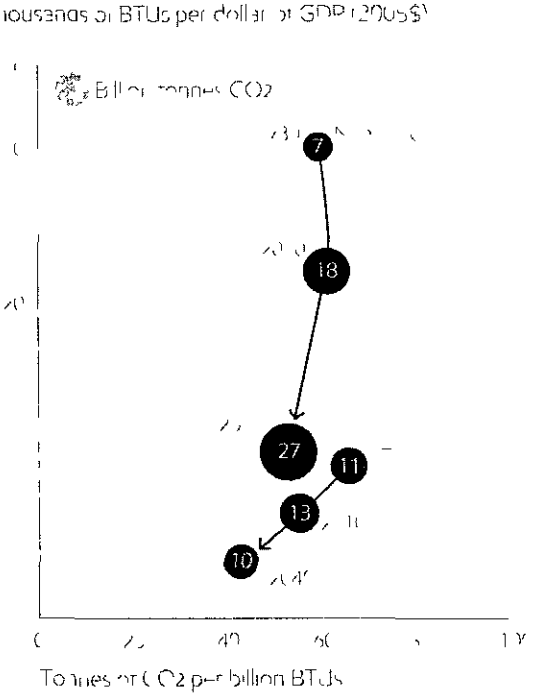
Market forces as well as emerging public policies are already having an impact on energy-related CO_2 emissions in many parts of the world. After decades of growth, we expect worldwide energy-related CO_2 emissions will plateau around 2030 before gradually declining toward 2040, despite a steady rise in overall energy use.

Regionally, we see a variety of emission patterns through 2040, reflecting the different stages of economic development and varying degrees and types of energy used at a national level Increasingly, the world's CO_2 emissions will be driven by developing nations Overall, non-OECD emissions are likely to rise about 50 percent, as energy demand rises by about two-thirds Over the same period, OECD emissions are likely to decline approximately 25 percent and approach a 25 percent share of global emissions – down from about 40 percent in 2010

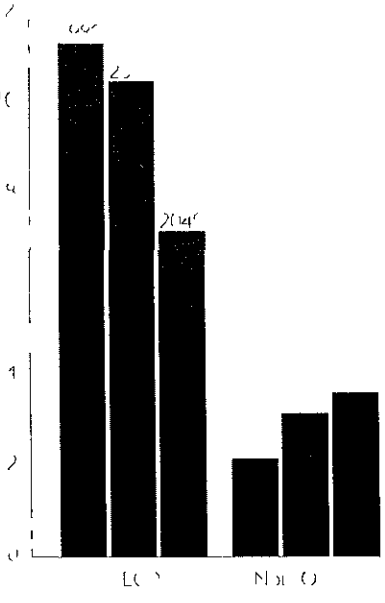
While emissions in non OECD nations will play a more significant role going forward some historical perspective is appropriate First, in 1980, the OECD accounted for about 60 percent of global emissions Since then both OECD and non-OECD nations have made progress in slowing the growth of CO_2 emissions by improving the energy efficiency of their economies In addition, OECD nations have gradually reduced the carbon intensity of their energy use by switching to lower-carbon fuels, namely natural gas and renewables Together, these factors have helped enable the decline in CO_2 emissions that has already begun in the OECD

Non OECD emissions surpassed OECD emissions in 2004, largely due to significant economic progress and a carbon-intensive energy mix heavily dependent on coal Looking ahead to 2040, we anticipate non OECD nations will continue to improve the energy-efficiency of their economies, but also shift toward less carbon-intensive energy sources Together, these factors will help global CO_2 emissions peak around 2030 Even then, emissions on a per capita basis in non-OECD nations will remain about half the level of OECD nations

CO_2 emissions relative to energy efficiency and fuel mix changes



Energy-related CO_2 emissions

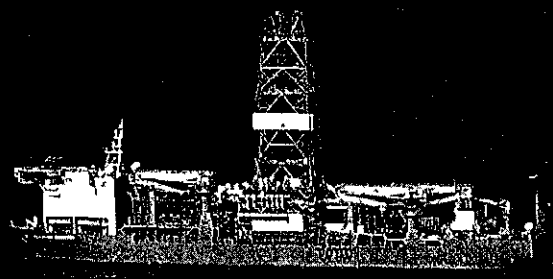


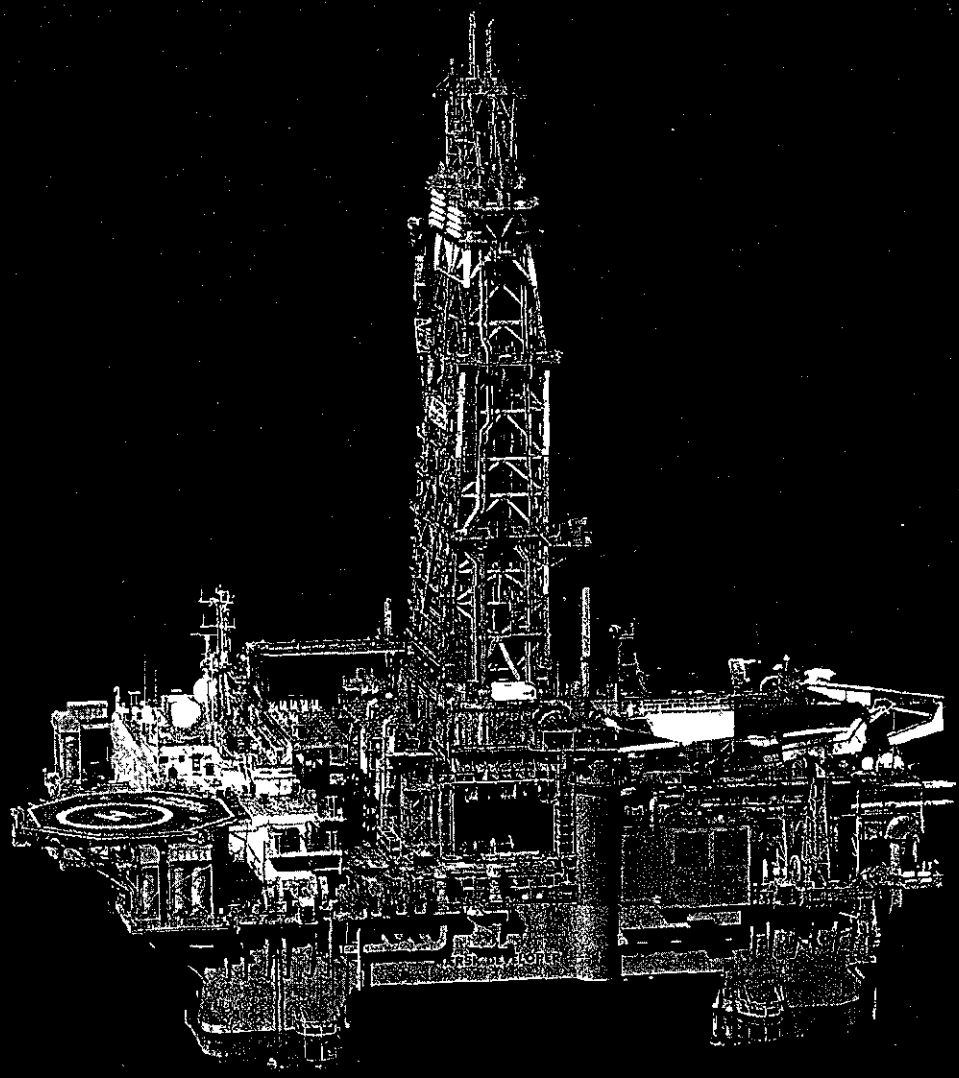
Energy supply

Advances in technology continue to make a wide range of energy supplies available to consumers. At the same time, the fuels that people and businesses choose to meet their needs continue to evolve. These choices are based not just on price, but also on attributes like convenience, performance and environmental effects. Natural gas is expected to be the fastest-growing major fuel through 2040.

"Instead of asking if the world will run out of oil and gas, many people are starting to wonder what other frontier energy sources we will be able to access as technology progresses."

Center for Strategic and International Studies,
The Shifting Geopolitics of Natural Gas, July 2013





Oil and other liquid supplies

Oil resource base continues to expand

Over the coming decades energy sources will continue to evolve and diversify driven by changes in technology, consumer needs, and public policies But liquid supplies – primarily crude oil – are projected to remain the single biggest source of energy and vital to transportation

Ongoing advances in exploration and production technology continue to expand the size of the world's recoverable crude and condensate resources Despite rising liquids production, we estimate that by 2040, about 65 percent of the world's recoverable crude and condensate resource base will have yet to be produced

Even as global oil production rises, the estimated size of the global recoverable resource base continues to increase as a result of advancements in science and technology that have enabled the production of new sources of liquid fuels In the early 1980s, the U S Geological Survey estimated that there were 55 years of crude and condensate supply given the demand at that time In 2012, that estimate had risen to 125 years with current increased production

Globally, while conventional crude production will likely decline slightly over the *Outlook* period, this decline will be more than offset by rising production from supply sources enabled by new technologies – including tight oil deepwater and oil sands

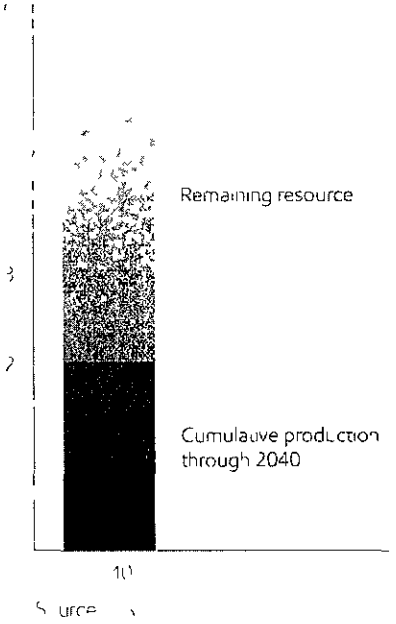
North American liquids production is expected to rise by more than 40 percent from 2010 to 2040, boosted by gains in oil sands, tight oil and NGLs With production rising and demand falling,

65 percent

By 2040, about 65 percent of the world's recoverable crude and condensate resource will have yet to be produced.

Crude and condensate resource

Trillion barrels of oi



S urce

North America is expected to shift from a significant crude oil importer to a fairly balanced position by 2030

Latin American liquids production will nearly double through 2040 with the development of the Venezuelan oil sands Brazilian deepwater and biofuels

The Middle East is expected to have the largest absolute growth in liquids production over the *Outlook* period — an increase of more than 35 percent This increase will be due to conventional oil developments in Iraq as well as growth in NGLs and rising production of tight oil toward the latter half of the *Outlook* period

In Africa large deepwater developments are expected to result in the continent seeing about a 10 percent rise in liquids production from 2010 to 2040

Rise in tight oil, NGLs and other emerging sources

For decades the vast majority of the world's oil came from conventional sources wells drilled on land or not far offshore But that will change significantly over the next few decades As conventional production declines, more of the world's oil demand will be met by emerging sources that only recently became available in significant quantities — oil sands, tight oil deepwater NGLs and biofuels

Growth in these emerging sources is largely due to advancements in science and technology, the exception is biofuels which in most countries is linked to government policies that mandate the use of these fuels derived from agricultural products like corn sugar seeds or palm oil

By 2040 emerging supplies will account for more than 40 percent of global liquids supply as technology enables increased development of these resources (see page 39)

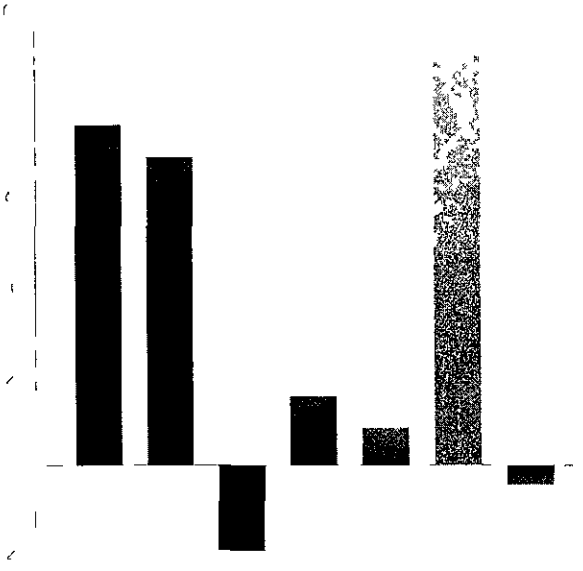
45 percent

By 2040, about 45 percent of liquids supply will be from sources other than conventional crude and condensate production.

The largest contribution comes from NGLs, which should grow by 80 percent from 2010 to 2040 NGLs — such as ethane propane and butane — are extracted from natural gas NGLs are expected to approach 15 percent of global liquids supply in 2040 amid rising production in North America and the Middle East The projected strong growth in natural gas production, driven in part by unconventional drilling activity means rising output of NGLs too Like some oil-based liquids, NGLs can be used as feedstocks to manufacture plastics and other chemical products as heating fuels or as additives to engine fuels

Change in liquids production

2010–2040 in million barrels per day



10 times

Tight oil supply grows more rapidly than any other liquid supply source, more than 10 times the 2010 level.

Deepwater supplies will grow by more than 150 percent from 2010 to 2040. Deepwater production, which refers to wells drilled in more than 400 meters (1,312 feet) of water, is concentrated in Angola, Nigeria, the Gulf of Mexico and Brazil. Globally, deepwater drilling is expected to plateau near the end of the *Outlook*.

Another rapidly emerging source is tight oil. These are liquids extracted from low permeability rock formations, which until recently were not economic to produce. Tight oil production is projected to rise by more than 1,000 percent from 2010 to 2040, when it will account for 5 percent of global liquids production. Tight oil production will be led by North America, followed by Russia and then other areas. To put this in perspective with OPEC producers, North American tight oil supply in 2015 will likely surpass any other OPEC nation's current oil production – with the exception of Saudi Arabia.

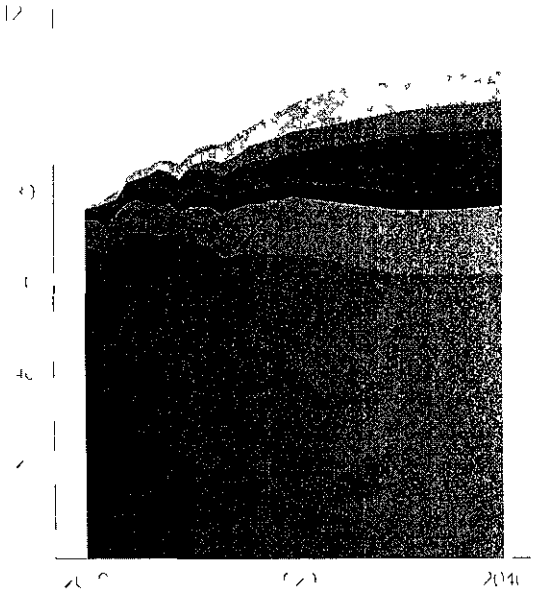
Oil derived from oil sands will rise by almost 300 percent over the *Outlook* period. These liquid supplies are concentrated in Canada and Venezuela.

North America will see a dramatic rise in technology enabled supplies. Canada, for example, is expected to see more than 200 percent growth in oil sands production from 2010 through 2040. In North America, tight oil and NGLs will account for almost 35 percent of liquids production by 2040.

Liquids production from recently emerging sources is expected to grow fastest in non-OPEC countries, where conventional production is declining fastest. But OPEC member nations will also expand their production of liquids. By 2040, about 45 percent of the world's liquids supply will come from OPEC countries, compared to about 40 percent in 2010.

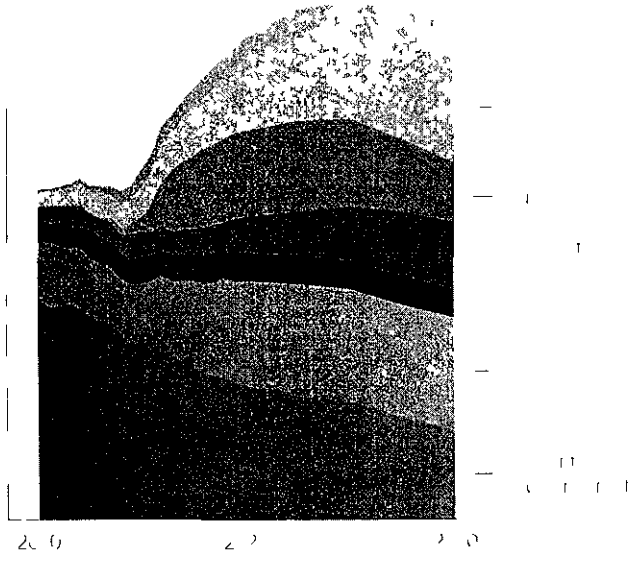
Global liquids supply by type

Millions of oil-equivalent barrels per day



North America liquids supply by type

Millions of oil-equivalent barrels per day



High-impact drilling and completion technologies

Advances in technologies used for well drilling and completion have enabled the energy industry to reach new sources of oil and natural gas to meet rising demand around the world. New technologies have also helped reduce the environmental impact of energy production by allowing more oil and gas to be produced with fewer wells

For example, the Gorgon Jansz development offshore northwest Australia will include wells that deliver natural gas at rates in excess of 300 million cubic feet per day. Just one of these wells could meet the residential gas demand of more than 40 million households in China every day.

Advances in technologies will play a critical role in meeting global energy demand because they enable the discovery of new resources, access to harsh or remote locations and the development of challenged reservoirs that previously were not economic to produce.

The Arctic is the world's largest remaining frontier of undiscovered oil and gas resources. With its remote location, harsh weather and dynamic ice cover, the Arctic presents extraordinary challenges. Technology solutions include ice-resistant and iceberg-resistant platforms, iceberg surveillance research to characterize the hazards associated with icebergs and simulation capabilities to predict the potential magnitude of ice impacts.

For example, at the Sakhalin-1 project offshore eastern Russia, advances in drilling technologies have enabled several fields far offshore to be reached by a land-based drilling rig, improving production rates and reducing environmental risk

These fields have been developed with the Yastreb rig, one of the world's largest and most sophisticated land-based drilling rigs. Since 2007, ExxonMobil has drilled 19 of the world's 30 longest extended-reach wells, including the Z-44 well drilled at the Chayvo field. This well extended for a total length of 12,376 meters (40,604 feet) — more than 7 miles. Because of the application of other proprietary technologies, these Sakhalin-1 wells were also the fastest-drilled extended-reach wells in the world.

Well completion is the final step of the drilling process, where the connection to hydrocarbon-bearing rock is established. Here again, advances in technology have enabled more oil and natural gas to be recovered from the length of each well, improving production and reducing the environmental footprint of energy production.

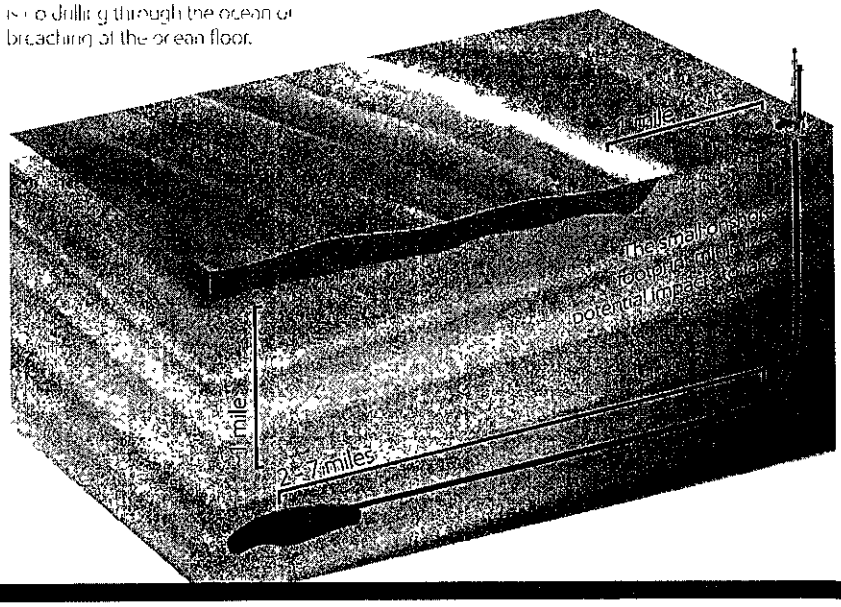
For example, by combining extended-reach drilling capability with advanced stimulation technology, operators can optimize how and where stimulation fluid interacts with rock, allowing sustained production rates along the length of the wellbore. Companies are pushing completions in excess of 3,000 meters (9,842 feet) in length, compared to a typical completion of 30 meters a couple of decades ago.

These types of drilling and completion technologies have also enabled the recent growth in production from shale and other unconventional oil and gas reservoirs in North America, using a combination of hydraulic fracturing and horizontal, extended-reach drilling. ExxonMobil's Piceance project in Colorado pioneered the capability to place multiple hydraulic fractures in a single well, and was first to use efficient pad drilling operations that now characterize all unconventional oil and gas production.

An illustration of land-based extended reach technology

State-of-the-art proven technology safely reaches and develops offshore oil resources

Marine habitats are undisturbed, as there is no drilling through the ocean or breaching of the ocean floor.



Natural gas

The world has about 200 years of natural gas at current production levels

Natural gas will continue to play an increasingly important role in meeting global energy needs Utilities, industries and other consumers are choosing this fuel because it is versatile affordable and produces relatively low emissions

Natural gas will be the world's fastest-growing major energy source through 2040. Global demand is projected to rise by close to 65 percent from 2010 to 2040 – and account for about 40 percent of the growth in global energy needs **By roughly 2025, natural gas is expected to overtake coal as the second-largest energy source, behind oil.**

Non-OECD countries drive 80 percent of the projected global growth in natural gas demand **About 50 percent of the growth is expected to come from Asia Pacific, with China accounting for half that increase.** In OECD countries demand for natural gas is expected to rise through 2035, then plateau About two-thirds of the increase in OECD demand will likely occur in North America, supported by abundant domestic resources

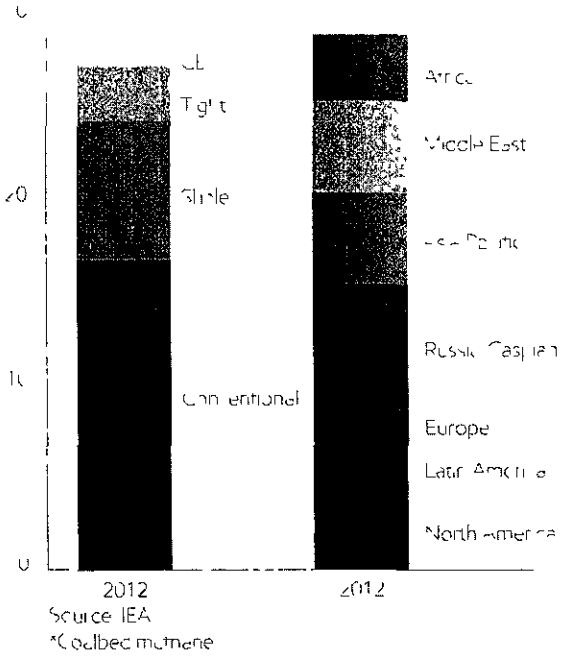
Natural gas resources are plentiful The IEA estimates the remaining recoverable natural gas resource worldwide to be about 28 600 trillion cubic feet (TCF) – about 200 times the natural gas the world currently consumes in a year

Estimates of recoverable gas have doubled in the last 10 to 15 years as hydraulic fracturing and horizontal drilling technologies have unlocked the prospect of recovering unconventional gas – the natural gas found in shale and other dense rock formations that only recently became economic to produce

Gas resources also are geographically diverse, six of seven regions each hold 10 percent or more of the world's remaining recoverable resource Conventional gas constitutes approximately 60 percent of the world's remaining recoverable gas resource of which about 55 percent is in the Middle East and Russia/Caspian

Remaining recoverable natural gas resource

Thousand trillion cubic feet



Source IEA
*Coalbed methane

Natural gas production will expand and diversify over the coming decades. While **North America and Russia/Caspian will continue to be the two leading natural gas-producing regions**, other regions will also see strong growth. **Asia Pacific, Africa and Latin America are each expected to more than double their gas production over the *Outlook* period.** This growth will be spurred by both strong regional demand and export projects.

215 billion

Global demand for natural gas will rise by 215 billion cubic feet per day over the *Outlook* period. That is equal to adding more than three times the natural gas consumed in the United States in 2010.

Shale, LNG continue to reshape natural gas market

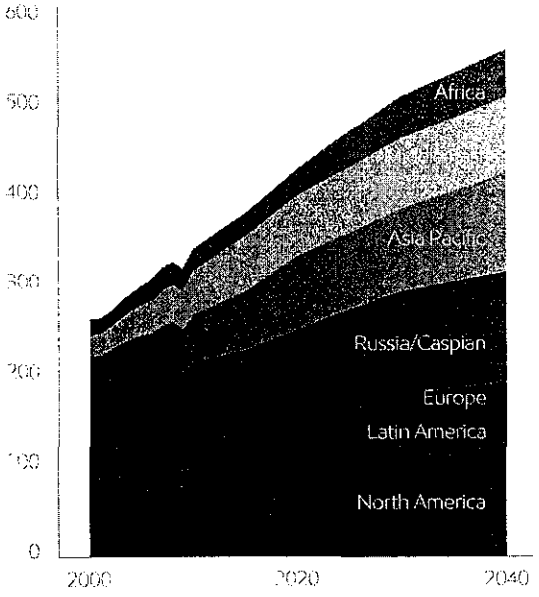
Two significant developments in natural gas — shale gas production in North America and the growth of the global LNG market — are likely to play a major role in expanding and reshaping natural gas supplies over the coming decades.

Unconventional gas — including shale gas, tight gas and coalbed methane — accounts for about 40 percent of the world's remaining recoverable gas resource, according to IEA estimates. Unconventional development is expected to play an increasing role in the global gas supply.

Advances in technology and favorable market conditions have unlocked North America's vast resources of shale gas and other unconventional sources such as tight gas and tight oil. From 2010 to 2040, unconventional gas production in North America is expected to grow by around 65 billion cubic feet per day, which is about the size of total U.S. gas production today. This abundant supply is expected to enable **North America to shift from a net importer to a net exporter of natural gas by 2020** as production outpaces demand.

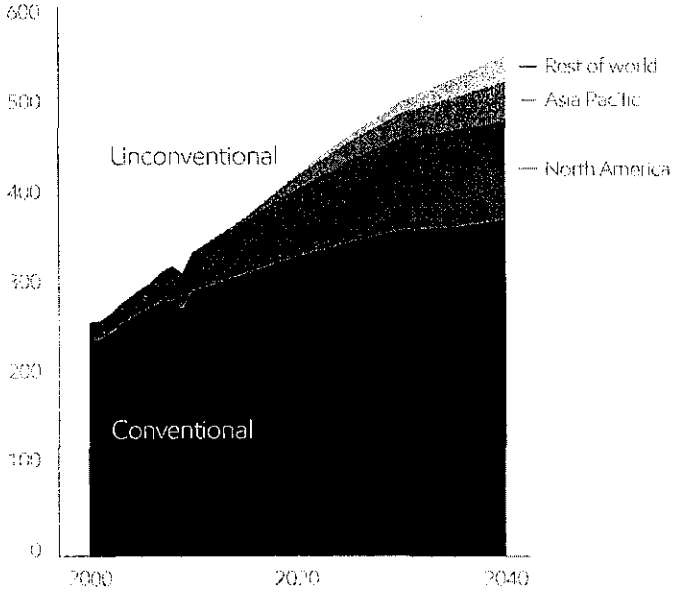
Natural gas production by region

Billion cubic feet per day



Natural gas production by type

Billion cubic feet per day



There is also large potential for unconventional gas production in other parts of the world notably Asia Pacific Australia China and Indonesia, along with Argentina and other nations are actively promoting exploration and development of their unconventional gas resources aspiring to replicate North America s success In each country the pace of development will depend on geology appropriate technology adaptations, governing policies and development economics

About 65 percent of the growth in natural gas supplies through 2040 is expected to be from unconventional sources which will account for one third of global production by 2040 North America will lead unconventional gas production accounting for more than half the growth through most of the *Outlook* period

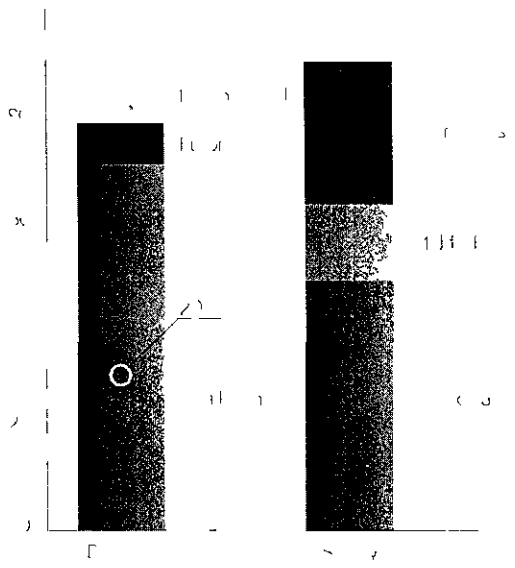
Like oil, natural gas is often found in remote areas far from large, urban energy demand centers LNG or liquefied natu al gas can be transportec by ship, enabling gas to be delivered economically to more distant markets than can be reached by pipeline

All around the world — from the highlands of Papua New Guinea to the deep water off east Africa to frigid far east Russia, to the U S Gulf Coast — LNG projects are in various stages of planning and development to produce gas destined for faraway ports These projects will bring jobs and economic opportunity to gas-rich regions, while supplying much-needed cleaner energy to burgeoning cities An increasing share of global natural gas demand through 2040 is expected to be met by gas imported as LNG

LNG volume is expected to triple over the *Outlook* period to meet approximately 15 percent of global gas demand The growth of the LNG market will facilitate trade between regions helping to balance global supply and demand of natural gas

Overall, international trade of natural gas in 2040 is expected to be 2 5 times the 2010 level, growing from about 15 percent of gas demand in 2010 to 25 percent by 2040 Most of this traded volume will be LNG, particularly in Asia Pacific ***By 2040, about 40 percent of Asia Pacific's natural gas demand will be satisfied by LNG,*** with another 10 percent supplied by pipeline imports Europe's regional gas imports are also likely to increase from about 45 to 60 percent as local production declines

LNG in 2040



"Natural gas is poised to enter a golden age, but this future hinges critically on the successful development of the world's vast unconventional gas resources. North American experience shows unconventional gas — notably shale gas — can be exploited economically. Many countries are lining up to emulate this success."

International Energy Agency

Global energy supplies

Over the *Outlook* period, we see several major trends in energy supplies

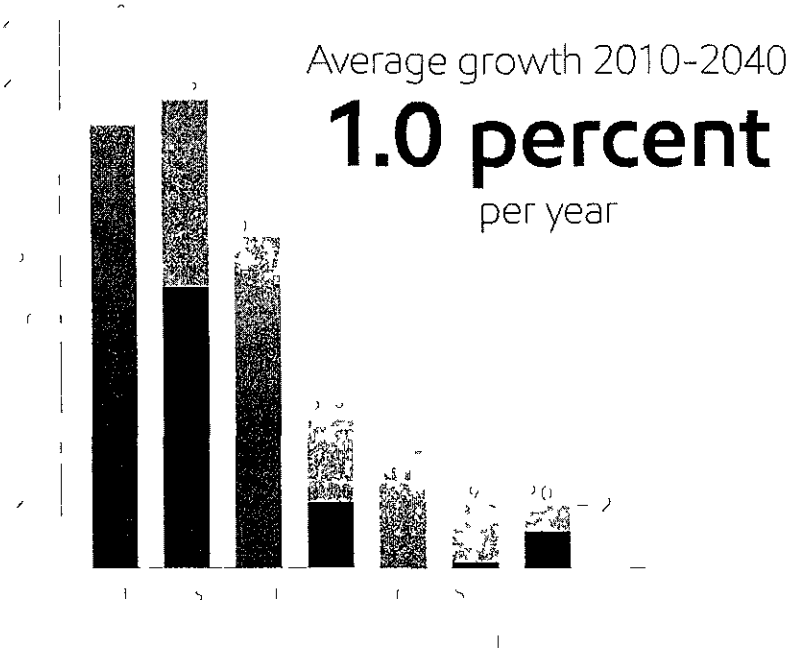
Oil remains the top global energy source and the fuel of choice for transportation Demand for oil is projected to rise by approximately 25 percent through 2040 led by increased commercial transportation activity A growing share of this demand will be met by sources such as deepwater, oil sands and tight oil which are increasing as a result of advances in technology

Natural gas will contribute the biggest growth in energy supplies Natural gas is affordable, widely available extremely versatile and emits up to 60 percent less CO_2 than coal when used for power generation With abundant resources unlocked by continuing technology advances natural gas is expected to become more important in the global energy mix accounting for more than 25 percent of global energy needs by 2040, as natural gas demand rises by about 65 percent

Coal is currently the top fuel for power generation and accounts for the second-largest share of energy supplies today We expect demand will continue to rise until around 2025 and then decline – despite the existence of a huge resource base Driving this decline will be demand reductions in OECD countries as well as in China which today consumes approximately half of the world's coal production By 2040 we anticipate that coal's share of the global energy mix will fall from approximately 25 percent in 2010 to below 20 percent

Nuclear energy will see solid growth. While some countries scaled back their nuclear expansion plans in the wake of the 2011 Fukushima incident in Japan many other countries are expected to expand the use of this energy source to meet electricity needs while reducing emissions Growth will be led by the Asia Pacific region where nuclear output is projected to rise from 3 percent of total energy in 2010 to close to 9 percent by 2040

Energy mix continues to evolve



Renewable energy supplies — including traditional biomass, hydro and geothermal as well as wind, solar and biofuels — will grow by close to 60 percent, led by increases in hydro, wind and solar Wind solar and biofuels are likely to make up about 4 percent of energy supplies in 2040, up from 1 percent in 2010 We foresee wind and solar providing about 10 percent of electricity generated in 2040, up from about 2 percent in 2010

Expanding energy will require trillions of dollars in investment The IEA estimates that meeting the world's energy needs will require expenditures on the energy-supply infrastructure of approximately $1 6 trillion per year on average through 2035 About half of the investments relate to projected oil and natural gas needs, while approximately 45 percent relate to expected power generation requirements

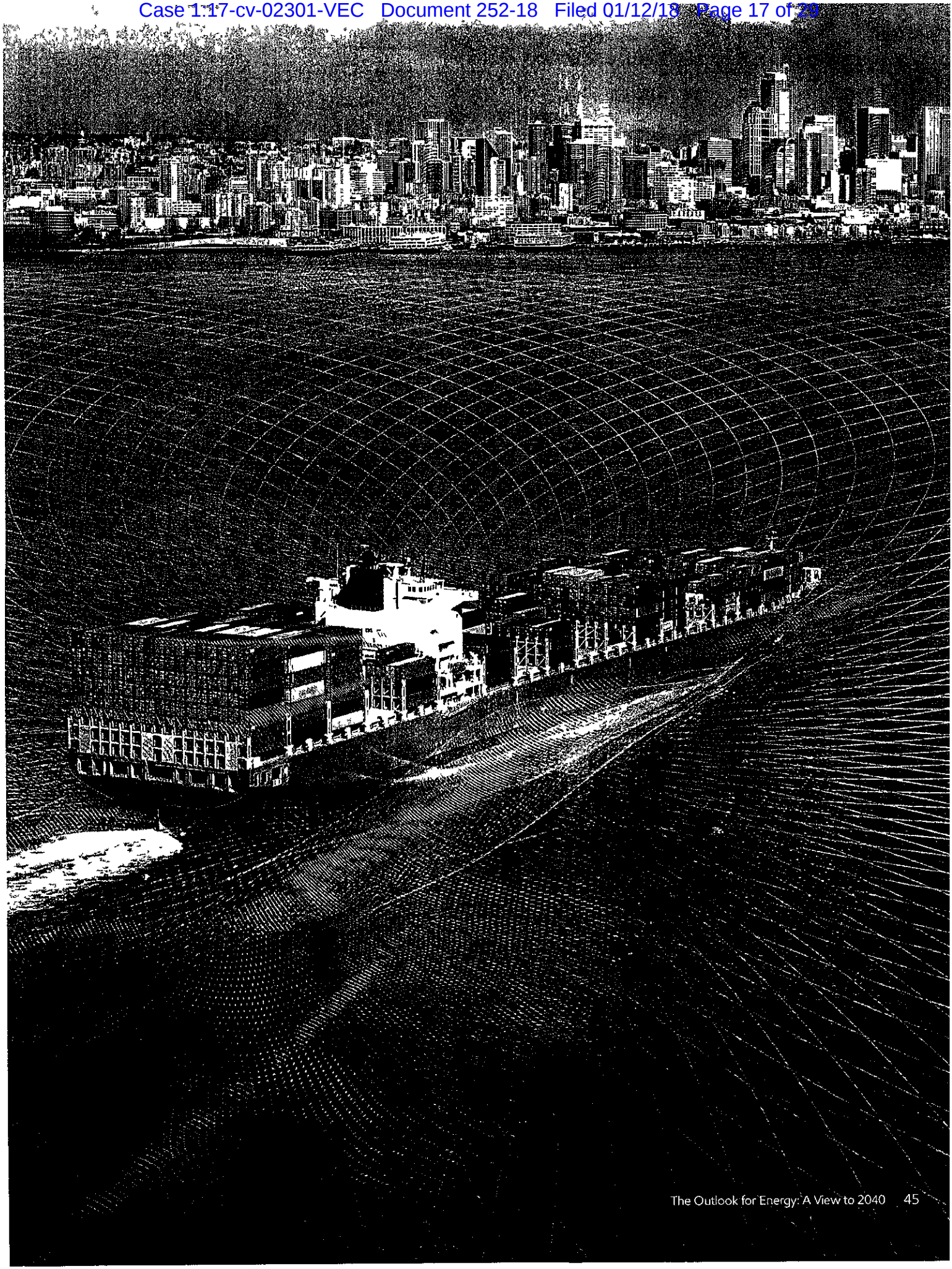
Global marketplace

What does a family in Shanghai preparing their dinner have in common with a taxi driver in New York City? How is a computer service company in Mumbai similar to an automobile manufacturer in Germany?

They each are connected to the global energy marketplace Every consumer, every economy is linked in some way to the worldwide energy network and the global growth and international trade it enables. Maintaining a robust energy marketplace is critical to meeting world energy demand now and in the future

"Energy powers the movement of goods and people across borders. Without energy, there is no international trade."

Pascal Lamy, former Director-General, World Trade Organization



Energy and trade

Free trade benefits producers and consumers

Today's global economy is made possible by free trade. Trade is not a simple one-dimensional link between producers and consumers. It's an extensive web of buyers and sellers, all at various stages of the global value chain. At the micro level, producers/sellers are also consumers/buyers, because they exchange what they produce for all other goods and services they need. At the macro level, worldwide imports and exports balance each other out. As global citizens, we consume what we produce.

Now more than ever, producers utilize whichever resources are most abundant and suitable, and specialize in providing products and services that offer the best opportunities to add value and meet the needs of customers worldwide. Meanwhile, consumers enjoy unprecedented access to a wide range of products and services from around the world at affordable prices — from raw materials and intermediate goods to capital equipment, technology devices and final consumer goods. Trade improves both the quantity and quality of products and services. And the entire global trade network relies on energy.

The link between energy and trade

Traditionally, the goods and services that a country or company provides to the global marketplace are considered either labor intensive (such as textiles and shoes) or capital intensive (such as automobiles and machinery). In recent decades, knowledge-intensive goods and services (such as computer software and financial services) have grown in prominence. But no matter how a product or service is classified, it always has an essential component: energy.

"The most important single central fact about a free market is that no exchange takes place unless both parties benefit."

Milton Friedman, Nobel Laureate in Economics

This is the first major link between energy and trade: All goods and services traded on the global market embody energy in their production or creation. Whether used as a direct input or as an ingredient embedded in capital, labor and technology, energy plays a vital role in the global "production function," even as continued advances in technology enable all segments of society to use energy more efficiently.

In addition, delivering goods and services across national borders and vast distances requires efficient transportation and communication, which both rely on energy. Since the first ancient trading routes, advances in transportation and communication technologies have helped people overcome natural barriers to trade, such as distance and geography.

32 percent

In 2012, global goods and services exports were valued at 32 percent of world GDP, up from 22 percent in 1980

Throughout history, advances in transportation have aligned with the changing ways in which the world harnesses energy from horse power and sailboats, to coal-fired steam-engine trains and ocean liners, to tractor trailers, mega ships and airplanes that use the latest engine and fuel technologies

The same is true of advances in communication which not only support the trading of goods, but also the increasingly important service trade Today, services are exchanged at all times of day around the world – from information systems to call centers, from cross-border banking to foreign tourism Whether transacted via cell phones, fax or the Internet, all of these services fundamentally rely on electricity and other forms of energy

The last and perhaps most visible link between energy and trade is the trading of various energy forms themselves. Every economy relies on energy, but energy resources are unevenly distributed around the world As a result, trading of energy is essential to global economic development It enables both energy exporters and energy importers to realize economic benefits that would otherwise be impossible to attain

Unobstructed energy trade helps countries improve economic security by offering diverse supplies to supplement their indigenous resources Over time energy trade minimizes the impact of market disruptions and encourages investment in energy exploration and production More generally, a healthy world energy market makes a crucial contribution to fostering global political social and economic progress

Exports and imports of energy

Maintaining a robust global energy marketplace is critical to meeting rising global energy demand. The backbone of the global energy marketplace is free trade which enables energy to move across various boundaries by pipeline, ship railway or in the case of electricity, by transmission lines Oil and natural gas are the most widely traded energy sources, but other forms of energy – including coal electricity and some renewable fuels – are also actively traded on the international market

Trade has always been an important aspect of world energy markets It will be even more important in the future

"We have seen that when governments allow access to resources .. promote international cooperation and support strong partnerships, nations benefit through expanded trade that creates economic value and enhances energy diversity."

Rex W Tillerson, Chairman and CEO, ExxonMobil

In terms of oil, the world's single biggest energy source, we expect that about half of global liquid fuels demand will continue to be met via international trade by 2040. However, on the regional level, there will be some important changes in trends over that time period

- In the Americas, North America is expected to shift from a significant importer of petroleum supplies to a fairly balanced position by about 2030 as its domestic production rises substantially Latin America already a net exporter, will see strong growth in exports by 2040 even as local demand increases

- Europe is expected to remain a significant importer of liquid fuels The Russia/Caspian region will remain a net exporter, even as its production gradually declines after 2030

- The Middle East is expected to expand oil exports as its production increases through 2040 Africa, another significant exporter today, is expected to see its exports decline over the coming decades as local demand rises but production remains steady

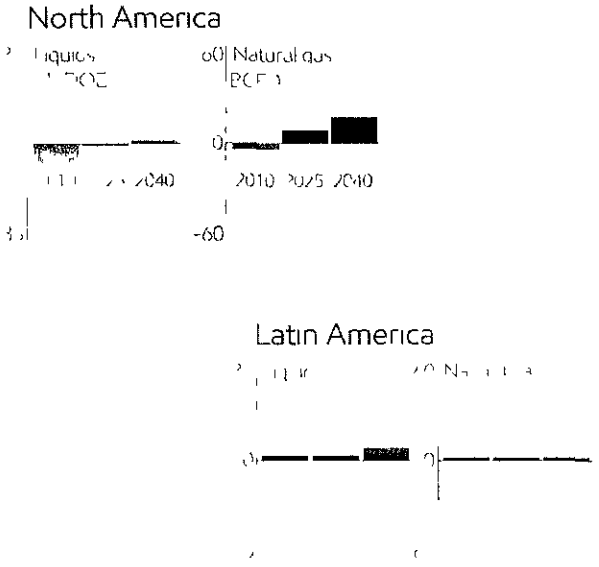
- The Asia Pacific region already relies on imports for about 70 percent of its liquid fuels demand, this proportion is expected to grow even higher through 2040 as local demand grows by about 50 percent Net imports are likely to rise by roughly 75 percent

International trading will play an increasingly important role in meeting global demand for natural gas. Traded volumes of natural gas in 2040 are expected to be 2 1/2 times the 2010 level, with most of this growth coming from LNG

- North America is expected to shift from a net importer of natural gas to a net exporter by 2020, as production growth from shale and other unconventional sources outpaces demand Latin America is expected to remain fairly well balanced through 2040 as local demand absorbs local production

- Europe, which imports about 45 percent of its gas requirements today, is likely to see that percentage rise to about 60 percent by 2025 as local production continues to decline

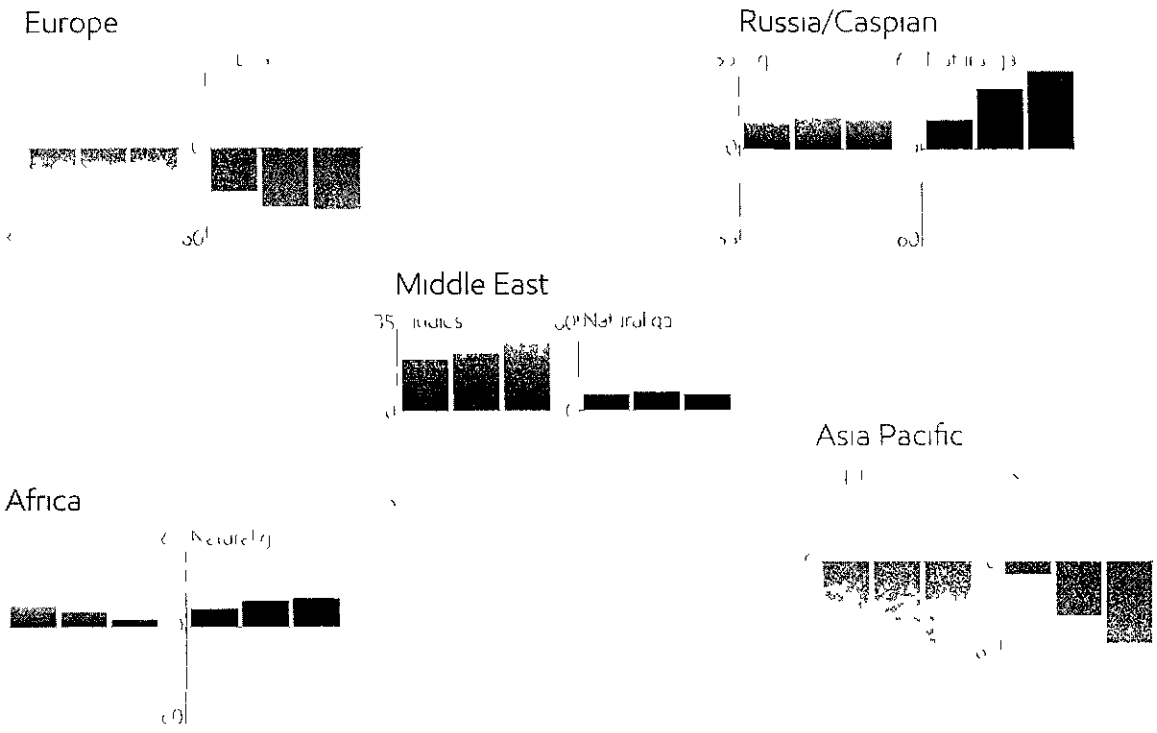
Liquids and natural gas net exports by region



The Russia/Caspian region will continue to be a significant exporter of natural gas with flows likely to grow by 170 percent as production rises by about 40 percent through 2040

- The Middle East and Africa will continue to be natural gas exporters Middle East gas exports are likely to change only marginally through 2040, as production grows by roughly 70 percent while demand grows by about 85 percent On the other hand, Africa is likely to see its exports grow from 2025 as production increases exceed growth in local demand

- The largest shift in net imports is likely to be seen in the Asia Pacific region, where the percentage of natural gas demand met by imports from outside the region is expected to rise from 15 percent today to 35 percent by 2040 Net gas imports into Asia Pacific are expected to rise by about 300 percent through 2025 and by about 500 percent by 2040



It is interesting to note that for both oil and natural gas, Europe and Asia Pacific will remain the two key importing regions, while the Middle East and the Russia/Caspian region remain the two largest exporters to world markets.

Ensuring reliable energy trading

Modern technology and infrastructure — from transmission lines to LNG tankers — have overcome many of the natural obstacles to energy trading. However, trading can still be hindered by less recognized artificial barriers such as excessive regulations and government restrictions. By impeding trade, such barriers also impede the ability of people around the world to jointly create and share the value from new economic opportunities.

Because energy is so integral to the global marketplace and to every modern economic activity, what impacts energy trade also impacts trade of any other commodity, good or service. As people have learned over time, limiting trade leads to scarcities, fewer choices and lower overall value for the entire global economy. On the other hand, more opportunities to trade mean more value, wealth and jobs for everyone.

All regions benefit from access to the global market and expanded trade opportunities. These benefits can be enhanced by trade rules and policies that facilitate open markets, support infrastructure development and promote international cooperation.

Unraveling the meaning of the trade balance

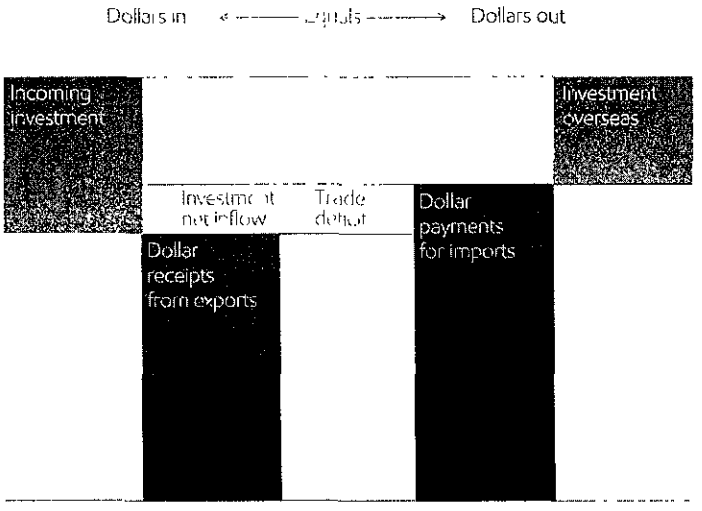
Nations — like people — do not prosper in isolation. And when a country engages in international trade, it will generally be a net exporter or a net importer of particular goods and services, including those related to energy. A trade occurs because it adds value to both the buyer and the seller. Taking all of a nation's trades into account results in what is commonly referred to as its trade balance, reflecting the difference in value between its exports and its imports.

In principle, a country's trade balance is no *different from a household's or a business'* budget balance. If we buy more from others than we sell, we run a deficit and need to borrow money or sell assets to cover it. On the contrary, if we sell more than we buy, we run a surplus, which we can save and invest. However, the story doesn't just stop there.

Imagine a two-country world where the United States runs a trade deficit and China a surplus. In this case, the U.S. is buying more than it sells, meaning more dollars are going out than coming in. So what happens to those "extra" dollars that China receives? It turns out to be in China's interest to "recycle" its surplus dollars by investing in U.S. stocks and bonds, as well as physical assets. From a U.S. perspective, this means that any "extra" dollars leaving the country *due to trade will return as a positive source* of investment funds. Essentially, this completes the entire cycle of dollar circulation in the world economy.

Of course, in reality, the world consists of multiple countries and the relationships among them are more complicated than this simple U.S.-China example. However, the same principle still applies: the flow of funds related to a country's trade and cross-border investment always offset each other in any given year. This relationship is called the "balance of payments."

Balance of payments example



Why is it important to recognize this relationship? In practical terms, a nation needs constant investments to support stronger economic growth. The investments by both private and public sectors (including financing related to government deficit spending) have to be supported first by savings (households, businesses and government) within a country. When national savings are not enough to cover national investments, and if a country is not willing to either reduce investments or boost savings, it has to seek investments from *other nations. This, as illustrated earlier,* means it will simultaneously run a trade deficit. Again, this situation is similar to budget challenges that individuals and businesses face every day.

Just as business results can vary from year to year, a country's exports and imports will fluctuate over time, affected by sometimes transient factors. But fundamentally, it is important to keep in mind that a nation's trade balance is ultimately determined by the differences between its national savings and investment, which in turn reflect more deeply rooted dynamics in demography, industrial composition, market structure, fiscal liabilities and general economic development.

The links between trade, investment and savings hold for every country in every year. Artificial barriers to trade not only threaten the obvious value created by free trade, but also endanger the free flow of investment funds that are important to economic prosperity.

Over time, achieving a more balanced trade *position is synonymous with narrowing* the gap between national savings and investments. In the end, only nations that promote free trade while also maintaining a sound savings-investment balance, including a solid fiscal foundation, can naturally strengthen their economic well-being and sustain long-term prosperity.

Practical energy choices

This year's *Outlook* highlights the ubiquitous nature of energy. Like no other commodity, energy touches every aspect of modern life, providing tremendous benefits to individuals and businesses around the world.

The convenience and reliability of modern energy are often taken for granted. But providing energy wherever and whenever people need it is not easy or automatic. The benefits we get from every flip of a light switch — or turn of an engine key or push of an "on" button — reflect decades of scientific advancement and enormous levels of investment.

Over the past century, advances in technologies have fundamentally changed our world. There has also been a dramatic evolution of energy needs and energy supplies. In recent decades, even as global energy needs reached unprecedented levels of scale and complexity, technology enabled consumers to choose from an increasingly diverse set of energy sources.

In this lies a simple fact: good, practical options to meet people's energy needs continue to expand.

The need for energy will continue to grow as economies expand, living standards rise and the world's population grows by more than 25 percent through 2040. Global demand for energy is projected to rise by about 35 percent from 2010 to 2040.

To meet this demand in the most effective and economic way, none of our energy options should be arbitrarily denied, dismissed, penalized or promoted. And free trade opportunities should be facilitated, not curtailed.

Governments must continue to foster the innovation and free markets that have always been the source of benefits for individuals and societies. Both public and private institutions can assist this process by promoting information sharing, sound cost/benefit analysis, and transparent legislative and regulatory processes. These elements are important for promoting economic growth, competitiveness, energy security and environmental protection.

Free markets supported by reliable public policies remain essential to creating economic opportunities and encouraging the private sector investments that are critical to meeting people's energy needs. According to the IEA, energy investments worldwide will need to total about $37 trillion over 2012 to 2035.

Individuals will also continue to play a major role in shaping the energy future as they make choices in pursuing their personal needs and ambitions.

One of the significant choices being made by energy consumers is *their continued adoption of energy* saving behaviors and technologies. Whether that choice is a more advanced wood-burning stove, LED lighting, a next-generation laptop computer, lightweight materials or a hybrid vehicle, gains in efficiency are one of the most effective ways to ensure the continued flow of reliable and affordable energy as our population grows and prosperity expands.

Since everyone needs energy, it is important that everyone understands the challenges related to these energy needs. Deepening public understanding of energy issues is our goal in publishing the *Outlook for Energy* each year. Ensuring that people have access to the energy they need to improve their lives motivates our work.

Meeting the world's energy challenges means helping billions of people raise their living standards, while also reducing the impact of energy use on the environment

The scale of our world's energy challenges is enormous, but so is human capacity for innovation and the will to succeed. By expanding technology and energy options — and by creating the political and fiscal environments that allow innovation and market solutions to thrive — we are optimistic that the world will be able to safely and responsibly expand prosperity and security.

2014 Outlook data

Energy Demand (quadrillion BTUs)						Average Annual Change			% Change			Share of Total		
Regions	1990	2000	2010	2025	2040	2010 2025	2025 2040	2010 2040	2010 2025	2025 2040	2010 2040	2010	2025	2040
World	361	418	523	654	710	1.5%	0.5%	1.0%	25%	9%	36%	100%	100%	100%
OECD	190	226	230	232	222	0.1%	-0.3%	-0.1%	1%	-5%	-4%	44%	36%	31%
Non OECD	170	193	292	421	488	2.5%	1.0%	1.7%	44%	16%	67%	56%	64%	69%
Africa	17	22	29	43	60	2.7%	2.2%	2.4%	48%	38%	105%	6%	7%	8%
Asia Pacific	91	128	200	289	321	2.5%	0.7%	1.6%	45%	11%	60%	38%	44%	45%
China	34	48	96	148	147	2.9%	-0.0%	1.4%	53%	-1%	52%	18%	23%	21%
India	13	19	28	49	68	3.8%	2.3%	3.0%	76%	40%	146%	5%	7%	10%
Europe	74	78	81	79	74	-0.2%	-0.4%	-0.3%	-3%	-6%	-9%	16%	12%	10%
European Union	68	72	73	69	63	-0.4%	-0.6%	-0.5%	-6%	-8%	-13%	14%	11%	9%
Latin America	15	20	27	37	46	2.1%	1.5%	1.8%	37%	25%	72%	5%	6%	6%
Middle East	11	18	30	42	52	2.3%	1.4%	1.9%	42%	23%	74%	6%	6%	7%
North America	95	114	113	117	112	0.2%	-0.3%	-0.0%	3%	-4%	-1%	22%	18%	16%
United States	81	96	94	93	88	-0.1%	-0.3%	-0.2%	-1%	-5%	-6%	18%	14%	12%
Russia/Caspian	58	38	42	47	45	0.7%	-0.2%	0.2%	10%	-3%	7%	8%	7%	6%
Energy by Type — World														
Primary	361	418	523	654	710	1.5%	0.5%	1.0%	25%	9%	36%	100%	100%	100%
Oil	137	158	178	206	221	1.0%	0.5%	0.7%	15%	7%	24%	34%	31%	31%
Gas	72	89	115	159	190	2.2%	1.2%	1.7%	38%	19%	64%	22%	24%	27%
Coal	86	93	133	158	133	1.1%	-1.1%	0.0%	19%	-16%	0%	26%	24%	19%
Nuclear	21	27	29	40	59	2.3%	2.6%	2.5%	41%	47%	109%	5%	6%	8%
Biomass/Waste	35	40	48	56	55	0.9%	-0.1%	0.4%	15%	-2%	13%	9%	9%	8%
Hydro	7	9	12	17	21	2.4%	1.5%	2.0%	43%	26%	80%	2%	3%	3%
Other Renewables	1	3	7	18	30	6.3%	3.5%	4.9%	151%	68%	322%	1%	3%	4%
End-Use Sectors — World														
Residential/Commercial														
Total	87	98	115	137	148	1.2%	0.5%	0.8%	19%	8%	28%	100%	100%	100%
Oil	13	16	15	16	16	0.4%	-0.0%	0.2%	6%	-1%	6%	13%	12%	11%
Gas	17	21	24	30	33	1.4%	0.6%	1.0%	23%	9%	35%	21%	22%	22%
Biomass/Waste	26	29	33	34	28	0.1%	-1.1%	-0.5%	2%	-15%	-14%	29%	25%	19%
Electricity	16	23	32	46	60	2.5%	1.8%	2.1%	44%	30%	88%	28%	34%	41%
Other	15	10	11	11	11	0.3%	-0.4%	-0.0%	5%	-6%	-1%	9%	8%	7%
Transportation														
Total	65	81	99	121	140	1.4%	1.0%	1.2%	23%	15%	42%	100%	100%	100%
Oil	64	79	94	111	122	1.1%	0.6%	0.9%	18%	10%	30%	95%	92%	87%
Biofuels	0	0	3	5	8	4.3%	3.3%	3.8%	89%	62%	206%	3%	4%	6%
Gas	0	0	1	3	7	8.9%	5.3%	7.1%	260%	117%	681%	1%	3%	5%
Other	1	1	1	1	2	1.8%	2.7%	2.3%	31%	49%	95%	1%	1%	1%
Industrial														
Total	139	151	193	245	260	1.6%	0.4%	1.0%	27%	6%	35%	100%	100%	100%
Oil	46	50	58	69	76	1.1%	0.7%	0.9%	18%	10%	31%	30%	28%	29%
Gas	31	37	44	59	68	1.9%	1.0%	1.4%	33%	15%	54%	23%	24%	26%
Coal	29	28	42	48	36	1.0%	-1.9%	-0.5%	16%	-26%	-14%	22%	20%	14%
Electricity	18	22	30	48	58	3.0%	1.3%	2.2%	57%	22%	91%	16%	19%	22%
Other	15	14	17	21	21	1.1%	0.0%	0.5%	17%	0%	18%	9%	8%	8%
Power Generation — World														
Primary	118	144	192	258	294	2.0%	0.9%	1.4%	34%	14%	53%	100%	100%	100%
Oil	15	12	11	9	7	-0.9%	-2.3%	-1.6%	-13%	-29%	-39%	6%	4%	2%
Gas	24	31	46	67	81	2.5%	1.4%	1.9%	46%	22%	78%	24%	26%	28%
Coal	48	62	87	106	95	1.3%	-0.7%	0.3%	22%	-10%	9%	45%	41%	32%
Nuclear	21	27	29	40	59	2.3%	2.6%	2.5%	41%	47%	109%	15%	16%	20%
Hydro	7	9	12	17	21	2.4%	1.5%	2.0%	43%	26%	80%	6%	7%	7%
Wind	0	0	1	5	10	10.6%	4.3%	7.4%	351%	87%	744%	1%	2%	3%
Other Renewables	3	4	7	14	20	4.5%	2.6%	3.6%	95%	48%	188%	4%	5%	7%
Electricity Demand (Terawatt Hours)														
World	10135	13212	18548	27854	35242	2.7%	1.6%	2.2%	50%	27%	90%	100%	100%	100%
OECD	6657	8604	9678	11105	11881	0.9%	0.5%	0.7%	15%	7%	23%	52%	40%	34%
Non OECD	3478	4608	8870	16749	23361	4.3%	2.2%	3.3%	89%	39%	163%	48%	60%	66%
Energy-Related CO_2 Emissions (Billion Tonnes)														
World	21.4	23.9	30.6	36.8	36.3	1.2%	-0.1%	0.6%	20%	-1%	19%	100%	100%	100%
OECD	11.3	12.8	12.8	11.8	9.7	-0.6%	-1.2%	-0.9%	-8%	-17%	-24%	42%	32%	27%
Non OECD	10.1	11.1	17.8	25.0	26.6	2.3%	0.4%	1.4%	41%	6%	50%	58%	68%	73%
GDP (2005$ Trillion)														
World	30	40	51	79	117	2.9%	2.7%	2.8%	54%	48%	128%	100%	100%	100%
OECD	25	32	38	51	68	2.0%	1.9%	2.0%	35%	33%	80%	74%	65%	58%
Non OECD	5	7	13	28	49	5.0%	3.8%	4.4%	107%	75%	263%	26%	35%	42%
Africa	1	1	1	2	4	4.1%	3.8%	3.9%	83%	74%	219%	2%	3%	3%
Asia Pacific	6	9	14	26	43	4.2%	3.4%	3.8%	86%	66%	209%	27%	33%	37%
China	1	1	4	10	19	6.8%	4.3%	5.5%	167%	88%	403%	7%	13%	16%
India	0	1	1	3	6	5.9%	4.9%	5.4%	136%	106%	386%	2%	4%	5%
Europe	11	14	16	20	26	1.6%	1.7%	1.7%	28%	29%	65%	31%	26%	22%
European Union	10	13	14	18	23	1.5%	1.6%	1.6%	25%	27%	59%	28%	23%	20%
Latin America	1	2	2	4	6	3.5%	2.9%	3.2%	68%	54%	158%	5%	5%	5%
Middle East	1	1	1	2	4	3.8%	3.1%	3.5%	76%	58%	178%	3%	3%	3%
North America	9	13	15	22	31	2.5%	2.3%	2.4%	45%	40%	103%	30%	28%	26%
United States	8	11	13	19	26	2.4%	2.2%	2.3%	43%	39%	99%	26%	24%	22%
Russia/Caspian	1	1	1	2	3	3.7%	2.8%	3.2%	71%	52%	160%	2%	3%	3%
Energy Intensity (Thousand BTU per $ GDP)														
World	11.9	10.5	10.2	8.3	6.1	-1.4%	-2.1%	-1.7%	-19%	-27%	-41%			
OECD	7.7	7.0	6.1	4.6	3.3	-1.9%	-2.2%	-2.1%	-25%	-28%	-47%			
Non OECD	31.3	26.2	21.8	15.1	10.0	-2.4%	-2.7%	-2.6%	-30%	-34%	-54%			

Rounding of data in the Outlook may result in slight differences between totals and the sum of individual components.

Energy Demand (quadrillion BTUs)						Average Annual Change			% Change					
OECD						2010	2025	2010	2010	2025	2010	Share of Total		
Energy by Type	1990	2000	2010	2025	2040	2025	2040	2040	2025	2040	2040	2010	2025	2040
Primary	190	226	230	232	222	0.1%	0.3%	-0.1%	1%	-5%	-4%	100%	100%	100%
Oil	85	98	94	87	79	-0.5%	0.6%	-0.6%	-7%	-9%	-15%	41%	37%	36%
Gas	35	47	54	65	69	1.3%	0.4%	0.8%	21%	6%	28%	23%	28%	31%
Coal	42	43	42	30	15	-2.3%	-4.3%	-3.3%	-29%	-48%	63%	18%	13%	7%
Nuclear	18	23	24	26	29	0.8%	0.6%	0.7%	12%	10%	23%	10%	11%	13%
Biomass/Waste	6	7	9	10	9	1.0%	-0.6%	0.2%	16%	-9%	6%	4%	4%	4%
Hydro	4	5	5	5	5	0.7%	0.3%	0.5%	11%	4%	15%	2%	2%	2%
Other Renewables	1	2	4	10	15	5.4%	3.0%	4.2%	121%	55%	242%	2%	4%	7%
End-Use Sectors														
Residential/Commercial														
Total	39	46	50	51	50	0.1%	-0.1%	-0.0%	1%	-2%	-0%	100%	100%	100%
Oil	9	9	7	5	4	-2.3%	-2.3%	-2.3%	-29%	-30%	-50%	15%	10%	7%
Gas	12	16	17	17	17	0.2%	-0.3%	-0.0%	4%	-5%	-1%	34%	34%	33%
Biomass/Waste	2	2	3	2	2	-0.4%	-1.7%	-1.1%	-6%	-23%	-27%	5%	5%	4%
Electricity	12	17	21	23	25	0.7%	0.6%	0.6%	11%	9%	20%	42%	45%	50%
Other	4	2	3	3	3	0.4%	0.2%	0.3%	6%	3%	9%	5%	5%	6%
Transportation														
Total	45	55	58	56	55	-0.2%	-0.2%	-0.2%	-3%	-2%	-5%	100%	100%	100%
Oil	44	54	55	52	49	-0.4%	0.5%	0.4%	-6%	-7%	-12%	96%	93%	89%
Biofuels	0	0	2	3	4	3.1%	2.0%	2.5%	58%	34%	111%	3%	5%	7%
Gas	0	0	0	1	2	11.9%	6.3%	9.0%	440%	149%	1242%	0%	1%	3%
Other	0	0	0	0	1	0.6%	3.3%	1.9%	9%	62%	76%	1%	1%	1%
Industrial														
Total	64	72	69	72	70	0.3%	-0.2%	0.1%	5%	-3%	2%	100%	100%	100%
Oil	26	29	28	27	26	-0.2%	-0.3%	0.2%	-3%	-4%	-7%	41%	38%	37%
Gas	15	18	17	21	22	1.4%	0.1%	0.7%	23%	1%	25%	25%	29%	31%
Coal	10	8	7	5	3	-2.9%	3.0%	-3.0%	-36%	-37%	-59%	10%	6%	4%
Electricity	10	12	12	14	15	1.3%	0.2%	0.8%	22%	3%	25%	17%	20%	21%
Other	3	4	4	5	5	0.7%	0.4%	0.2%	11%	-5%	6%	6%	7%	7%
Power Generation														
Primary	67	84	90	94	90	0.3%	0.3%	-0.0%	4%	-4%	-0%	100%	100%	100%
Oil	6	5	3	2	1	-1.4%	-6.4%	-3.9%	-19%	63%	-70%	3%	3%	1%
Gas	8	13	20	25	29	1.8%	0.9%	1.3%	30%	14%	48%	22%	27%	32%
Coal	30	35	34	24	12	-2.2%	-4.7%	-3.4%	-28%	-51%	-65%	38%	26%	13%
Nuclear	18	23	24	26	29	0.8%	0.6%	0.7%	12%	10%	23%	26%	28%	32%
Hydro	4	5	5	5	5	0.7%	0.3%	0.5%	11%	4%	15%	5%	5%	6%
Wind	0	0	1	3	6	8.7%	4.1%	6.4%	250%	83%	540%	1%	3%	7%
Other Renewables	2	3	4	7	8	2.9%	0.9%	1.9%	54%	14%	76%	5%	7%	9%
Non OECD														
Energy by Type														
Primary	170	193	292	421	488	2.5%	1.0%	1.7%	44%	16%	67%	100%	100%	100%
Oil	53	59	85	119	142	2.3%	1.2%	1.7%	41%	19%	68%	29%	28%	29%
Gas	37	42	62	94	121	2.9%	1.7%	2.3%	53%	28%	96%	21%	22%	25%
Coal	44	50	91	128	118	2.3%	-0.6%	0.9%	40%	-8%	29%	31%	30%	24%
Nuclear	3	4	5	14	30	7.2%	5.4%	6.3%	183%	119%	519%	2%	3%	6%
Biomass/Waste	30	33	40	45	45	0.9%	-0.0%	0.5%	15%	-0%	15%	14%	11%	9%
Hydro	3	4	7	12	16	3.3%	2.0%	2.7%	64%	35%	122%	2%	3%	3%
Other Renewables	0	1	3	9	16	7.5%	4.1%	5.8%	196%	83%	441%	1%	2%	3%
End-Use Sectors														
Residential/Commercial														
Total	48	52	65	86	98	1.9%	0.8%	1.4%	33%	13%	50%	100%	100%	100%
Oil	5	6	8	11	12	2.3%	0.8%	1.5%	40%	13%	58%	12%	13%	13%
Gas	4	5	8	13	16	3.5%	1.7%	2.6%	67%	28%	115%	12%	15%	17%
Biomass/Waste	24	27	30	31	27	0.2%	-1.1%	-0.4%	3%	-15%	-12%	47%	36%	27%
Electricity	3	6	11	23	35	5.0%	2.8%	3.9%	106%	52%	213%	17%	27%	36%
Other	12	8	8	9	8	0.3%	-0.6%	-0.2%	5%	-9%	-5%	13%	10%	8%
Transportation														
Total	20	26	41	65	85	3.1%	1.8%	2.5%	58%	31%	107%	100%	100%	100%
Oil	19	25	39	59	74	2.9%	1.5%	2.2%	53%	24%	90%	94%	91%	87%
Biofuels	0	0	1	2	5	6.2%	4.6%	5.4%	148%	96%	386%	2%	4%	5%
Gas	0	0	1	3	5	8.3%	5.0%	6.6%	230%	109%	588%	2%	4%	6%
Other	1	0	1	1	1	2.5%	2.4%	2.4%	45%	43%	106%	2%	1%	2%
Industrial														
Total	76	79	124	173	190	2.2%	0.6%	1.4%	39%	10%	53%	100%	100%	100%
Oil	20	21	30	42	50	2.2%	1.2%	1.7%	39%	20%	66%	24%	24%	27%
Gas	16	19	27	38	47	2.2%	1.4%	1.8%	40%	24%	73%	22%	22%	25%
Coal	19	19	35	44	33	1.6%	-1.8%	-0.1%	26%	-24%	-4%	28%	25%	18%
Electricity	8	9	19	33	43	4.0%	1.8%	2.9%	79%	31%	134%	15%	19%	23%
Other	12	10	13	16	16	1.2%	0.1%	0.7%	19%	2%	21%	11%	9%	8%
Power Generation														
Primary	51	60	102	164	204	3.2%	1.5%	2.3%	61%	24%	100%	100%	100%	100%
Oil	9	7	8	7	6	-0.7%	-1.3%	-1.0%	-11%	-18%	-27%	8%	4%	3%
Gas	17	17	26	41	53	3.1%	1.6%	2.3%	57%	28%	100%	26%	25%	26%
Coal	18	27	53	81	83	2.9%	0.1%	1.5%	53%	2%	57%	52%	50%	41%
Nuclear	3	4	5	14	30	7.2%	5.4%	6.3%	183%	119%	519%	5%	8%	15%
Hydro	3	4	7	12	16	3.3%	2.0%	2.7%	64%	35%	122%	7%	7%	8%
Wind	0	0	0	2	4	15.1%	4.5%	9.7%	723%	94%	1499%	0%	1%	2%
Other Renewables	1	1	3	7	12	6.7%	4.1%	5.4%	165%	82%	381%	3%	4%	6%

2014 Outlook data

Energy Demand (quadrillion BTUs) unless otherwise indicated						Average Annual Change			% Change			Share of Total		
Regions						2010	2025	2010	2010	2025	2010			
AFRICA	**1990**	**2000**	**2010**	**2025**	**2040**	**2025**	**2040**	**2040**	**2025**	**2040**	**2040**	**2010**	**2025**	**2040**
Primary	17	22	29	43	60	2.7%	2.2%	2.4%	48%	38%	105%	100%	100%	100%
Oil	4	5	7	12	18	3.7%	2.6%	3.1%	73%	47%	153%	24%	28%	30%
Gas	2	4	5	8	12	3.6%	2.6%	3.1%	69%	47%	149%	16%	18%	20%
Coal	3	3	4	6	9	2.3%	3.4%	2.9%	41%	66%	135%	14%	13%	16%
Nuclear	0	0	0	0	1	4.5%	11.1%	7.7%	93%	386%	838%	0%	1%	2%
Biomass/Waste	8	10	13	16	17	1.4%	0.5%	1.0%	23%	8%	33%	45%	37%	29%
Hydro	0	0	0	1	2	7.6%	3.3%	5.4%	200%	63%	387%	1%	2%	3%
Other Renewables	0	0	0	0	1	12.9%	5.8%	9.3%	517%	134%	1347%	0%	1%	1%
End-Use Demand (including electricity)														
Total End-Use	16	20	25	37	48	2.4%	1.9%	2.2%	43%	33%	90%	100%	100%	100%
Residential/Commercial	7	9	13	18	22	2.2%	1.5%	1.9%	40%	25%	74%	49%	48%	45%
Transportation	2	3	4	7	10	3.7%	2.7%	3.2%	73%	49%	157%	15%	18%	20%
Industrial	7	8	9	12	17	2.1%	2.0%	2.1%	36%	35%	84%	36%	34%	34%
Memo: Electricity Demand	1	1	2	4	9	5.5%	4.6%	5.1%	124%	96%	339%	8%	12%	18%
Power Generation Fuel	3	4	6	11	20	4.6%	4.0%	4.3%	97%	79%	253%	19%	26%	33%
CO_2 Emissions, B Tonnes	0.7	0.9	1.1	1.8	2.8	3.2%	2.8%	3.0%	59%	52%	142%			
ASIA PACIFIC														
Primary	91	128	200	289	321	2.5%	0.7%	1.6%	45%	11%	60%	100%	100%	100%
Oil	29	43	57	75	85	1.8%	0.8%	1.3%	31%	13%	48%	28%	26%	26%
Gas	6	11	21	41	57	4.6%	2.2%	3.4%	95%	39%	171%	11%	14%	18%
Coal	32	45	88	120	107	2.1%	-0.8%	0.7%	37%	-11%	22%	44%	41%	33%
Nuclear	3	5	6	15	28	6.3%	4.3%	5.3%	151%	88%	371%	3%	5%	9%
Biomass/Waste	19	20	22	25	23	0.8%	-0.5%	0.1%	12%	-8%	3%	11%	9%	7%
Hydro	1	2	4	7	9	3.8%	2.3%	3.0%	75%	40%	145%	2%	2%	3%
Other Renewables	0	1	2	7	12	7.8%	3.7%	5.7%	209%	72%	429%	1%	2%	4%
End-Use Demand (including electricity)														
Total End-Use	76	101	151	212	231	2.3%	0.6%	1.4%	40%	9%	53%	100%	100%	100%
Residential/Commercial	28	33	41	54	59	1.8%	0.6%	1.2%	30%	9%	42%	27%	25%	25%
Transportation	11	18	27	40	52	2.8%	1.7%	2.3%	52%	29%	96%	18%	19%	23%
Industrial	36	50	83	118	120	2.4%	0.2%	1.3%	42%	2%	45%	55%	56%	52%
Memo: Electricity Demand	7	12	24	44	58	4.0%	1.9%	2.9%	81%	32%	139%	16%	21%	25%
Power Generation Fuel	23	41	77	125	151	3.3%	1.3%	2.3%	63%	21%	98%	38%	43%	47%
CO_2 Emissions, B Tonnes	5.3	7.7	13.1	18.3	18.3	2.2%	0.0%	1.1%	39%	0%	40%			
EUROPE														
Primary	74	78	81	79	74	-0.2%	-0.4%	-0.3%	-3%	-6%	-9%	100%	100%	100%
Oil	30	32	31	27	25	-0.8%	-0.5%	-0.7%	-12%	-7%	-19%	38%	34%	34%
Gas	13	17	20	21	21	0.3%	0.1%	0.2%	5%	1%	6%	24%	26%	28%
Coal	19	14	13	10	5	-1.3%	-4.2%	-2.8%	-18%	-48%	-57%	15%	13%	7%
Nuclear	8	10	10	10	10	-0.2%	0.3%	0.1%	-3%	4%	2%	12%	12%	13%
Biomass/Waste	2	3	5	6	5	1.1%	-0.5%	0.3%	17%	-8%	9%	6%	7%	7%
Hydro	2	2	2	2	2	-0.1%	0.2%	0.0%	-2%	2%	1%	3%	3%	3%
Other Renewables	0	0	2	4	6	5.6%	2.4%	4.0%	126%	43%	222%	2%	5%	7%
End-Use Demand (including electricity)														
Total End-Use	57	61	64	62	60	-0.2%	-0.2%	-0.2%	-3%	-4%	-6%	100%	100%	100%
Residential/Commercial	17	18	21	21	20	0.1%	-0.3%	-0.1%	1%	-4%	-3%	33%	34%	34%
Transportation	14	17	19	18	18	-0.2%	-0.0%	-0.1%	-3%	-0%	-4%	29%	29%	30%
Industrial	26	25	24	23	22	-0.4%	-0.4%	-0.4%	-5%	-5%	-11%	38%	37%	36%
Memo: Electricity Demand	9	10	12	13	13	0.6%	0.2%	0.4%	9%	3%	13%	18%	21%	22%
Power Generation Fuel	27	29	32	32	30	0.1%	-0.6%	-0.3%	1%	-8%	-7%	39%	41%	40%
CO_2 Emissions, B Tonnes	4.5	4.3	4.3	3.9	3.2	-0.7%	-1.3%	-1.0%	-10%	-18%	-26%			
LATIN AMERICA														
Primary	15	20	27	37	46	2.1%	1.5%	1.8%	37%	25%	72%	100%	100%	100%
Oil	8	10	12	16	18	1.8%	0.7%	1.3%	31%	11%	45%	46%	44%	39%
Gas	3	4	6	9	13	2.9%	2.7%	2.8%	53%	49%	127%	22%	24%	29%
Coal	1	1	1	1	1	1.6%	0.5%	1.0%	27%	7%	36%	3%	3%	3%
Nuclear	0	0	0	0	0	3.5%	1.6%	2.5%	68%	26%	112%	1%	1%	1%
Biomass/Waste	3	3	4	5	5	0.7%	0.5%	0.6%	11%	9%	20%	16%	13%	11%
Hydro	1	2	2	3	4	2.3%	1.3%	1.8%	41%	21%	71%	9%	9%	9%
Other Renewables	0	0	1	2	4	5.4%	4.5%	5.0%	120%	94%	326%	4%	6%	9%
End-Use Demand (including electricity)														
Total End-Use	14	18	24	32	41	2.1%	1.5%	1.8%	37%	26%	72%	100%	100%	100%
Residential/Commercial	3	4	4	6	6	1.7%	1.0%	1.4%	29%	17%	51%	18%	17%	16%
Transportation	4	5	7	11	13	2.6%	1.3%	2.0%	48%	21%	79%	31%	33%	32%
Industrial	7	9	12	16	21	1.9%	1.8%	1.9%	33%	32%	75%	51%	50%	52%
Memo: Electricity Demand	1	2	3	5	7	3.1%	2.3%	2.7%	58%	41%	123%	13%	15%	17%
Power Generation Fuel	3	4	6	9	12	2.6%	1.9%	2.3%	48%	33%	97%	23%	25%	27%
CO_2 Emissions, B Tonnes	0.7	0.9	1.2	1.7	2.0	2.0%	1.3%	1.6%	35%	21%	63%			

Energy Demand (quadrillion BTUs)						Average Annual Change			% Change					
Regions						2010	2025	2010	2010	2025	2010	Share of Total		
MIDDLE EAST	**1990**	**2000**	**2010**	**2025**	**2040**	**2025**	**2040**	**2040**	**2025**	**2040**	**2040**	**2010**	**2025**	**2040**
Primary	11	18	30	42	52	2 3%	1 4%	1 9%	42%	23%	74%	100%	100%	100%
Oil	7	11	16	20	24	1 7%	1 0%	1 4%	29%	16%	50%	53%	48%	46%
Gas	4	7	13	21	25	2 9%	1 2%	2 1%	54%	20%	84%	45%	49%	48%
Coal	0	0	0	0	0	-10 1%	-6 3%	8 2%	80%	62%	92%	1%	0%	0%
Nuclear	0	0	0	0	2		10 8%	-	-	366%	-	0%	1%	4%
Biomass/Waste	0	0	0	0	0	7 4%	6 8%	7 1%	193%	168%	686%	0%	0%	0%
Hydro	0	0	0	0	0	4 8%	3 2%	4 0%	103%	60%	226%	0%	0%	0%
Other Renewables	0	0	0	0	1	12 3%	6 4%	9 3%	469%	152%	1334%	0%	1%	1%
End-Use Demand (including electricity)														
Total End Use	9	14	23	33	42	2 5%	1 5%	2 0%	44%	26%	81%	100%	100%	100%
Residential/Commercial	1	3	4	7	9	2 8%	1 6%	2 2%	51%	28%	93%	19%	20%	20%
Transportation	3	4	7	9	11	2 0%	1 4%	1 7%	35%	23%	66%	28%	26%	26%
Industrial	5	8	12	18	22	2 6%	1 6%	2 1%	46%	26%	84%	53%	54%	54%
Memo Electricity Demand	1	1	2	5	7	4 8%	2 2%	3 5%	102%	38%	178%	11%	15%	17%
Power Generation Fuel	3	5	9	14	17	2 8%	1 3%	2 1%	52%	22%	85%	31%	33%	33%
CO_2 Emissions, B Tonnes	0 7	1 1	1 8	2 3	2 6	1 7%	0 7%	1 2%	29%	11%	43%			
NORTH AMERICA														
Primary	95	114	113	117	112	0 2%	-0 3%	-0 0%	3%	-4%	-1%	100%	100%	100%
Oil	42	49	47	46	43	-0 2%	-0 5%	0 3%	3%	7%	-10%	42%	39%	38%
Gas	21	26	28	35	37	1 6%	0 5%	1 0%	26%	7%	36%	24%	30%	33%
Coal	20	23	21	14	6	-2 6%	-5 4%	-4 0%	32%	-56%	-70%	19%	12%	6%
Nuclear	7	9	10	11	13	0 8%	1 1%	0 9%	12%	18%	33%	9%	9%	11%
Biomass/Waste	3	4	3	4	3	0 4%	-1 1%	0 4%	7%	-16%	-10%	3%	3%	3%
Hydro	2	2	2	3	3	1 3%	0 3%	0 8%	21%	4%	26%	2%	2%	3%
Other Renewables	1	1	2	5	7	5 0%	3 2%	4 1%	107%	60%	231%	2%	4%	7%
End-Use Demand (including electricity)														
Total End Use	73	86	86	91	89	0 3%	-0 1%	0 1%	5%	-2%	4%	100%	100%	100%
Residential/Commercial	18	22	23	23	23	0 2%	0 0%	0 1%	3%	1%	3%	26%	26%	26%
Transportation	25	31	32	32	31	-0 0%	-0 1%	-0 1%	-1%	-2%	-3%	37%	35%	35%
Industrial	30	34	32	36	35	0 8%	0 2%	0 3%	13%	-3%	10%	37%	39%	39%
Memo Electricity Demand	11	15	16	19	20	1 1%	0 6%	0 9%	19%	9%	30%	18%	21%	23%
Power Generation Fuel	33	42	43	45	43	0 3%	-0 2%	0 0%	4%	-3%	1%	38%	38%	39%
CO_2 Emissions, B Tonnes	5 6	6 6	6 5	6 1	5 0	-0 4%	-1 3%	-0 8%	-6%	-18%	-22%			
RUSSIA/CASPIAN														
Primary	58	38	42	47	45	0 7%	-0 2%	0 2%	10%	-3%	7%	100%	100%	100%
Oil	18	8	9	10	10	0 9%	0 1%	0 5%	14%	1%	14%	20%	21%	22%
Gas	23	20	23	25	25	0 5%	-0 1%	0 2%	8%	-2%	7%	54%	53%	54%
Coal	13	7	7	7	4	0 1%	-2 7%	-1 3%	1%	-34%	-33%	16%	15%	10%
Nuclear	2	2	3	4	5	2 2%	1 3%	1 7%	38%	21%	67%	6%	8%	10%
Biomass/Waste	1	0	0	0	1	0 9%	0 3%	0 6%	15%	5%	21%	1%	1%	1%
Hydro	1	1	1	1	1	0 3%	0 4%	0 3%	4%	6%	10%	2%	2%	2%
Other Renewables	0	0	0	0	0	10 9%	6 0%	8 4%	372%	141%	1036%	0%	0%	1%
End-Use Demand (including electricity)														
Total End-Use	46	29	34	37	36	0 6%	-0 1%	0 2%	10%	-2%	8%	100%	100%	100%
Residential/Commercial	12	9	9	9	9	0 3%	-0 5%	-0 1%	4%	-8%	-4%	27%	26%	24%
Transportation	6	3	4	5	5	1 3%	0 2%	0 8%	22%	3%	26%	12%	13%	14%
Industrial	29	17	20	22	22	0 6%	-0 0%	0 3%	10%	-1%	9%	61%	61%	62%
Memo Electricity Demand	5	3	4	5	6	2 0%	0 8%	1 4%	34%	13%	51%	12%	15%	17%
Power Generation Fuel	27	19	19	21	20	0 6%	-0 4%	0 1%	9%	-6%	3%	46%	45%	44%
CO_2 Emissions, B Tonnes	3 9	2.3	2 5	2 7	2.4	0 4%	-0 7%	-0 1%	7%	-10%	-4%			

Glossary

Billions of cubic feet per day (BCFD). This is used to define volumes of natural gas. One billion cubic feet per day of natural gas is enough to meet about 2 percent of the natural gas used in homes around the world. Six billion cubic feet per day of natural gas is equivalent to about 1 million oil-equivalent barrels per day.

BTU: British thermal unit. A BTU is a standard unit of energy that can be used to measure any type of energy source. The energy content of one gallon of gasoline is about 125,000 BTUs. "Quad" refers to a quadrillion BTUs.

Millions of oil-equivalent barrels per day (MBDOE) This term provides a standardized unit of measure for different types of energy sources (oil, gas, coal, etc.) based on energy content relative to a typical barrel of oil. One million oil-equivalent barrels per day is enough energy to fuel about 5 percent of the light duty vehicles on the world's roads today.

Primary energy. Includes energy in the form of oil, natural gas, coal, nuclear, hydro, geothermal, wind, solar and bioenergy sources (biofuels, municipal solid waste, traditional biomass). Does not include electricity and market heat, which are secondary energy types reflecting conversion/production from primary energy sources.

Watt. A unit of electrical power, equal to one joule per second. A 1 gigawatt power plant can meet the electricity demand of more than 500,000 homes in the U.S. (Kilowatt (KW) = 1,000 watts, Gigawatt (GW) = 1,000,000,000 watts, Terawatt (TW) = 10^{12} watts). 300 terawatt hours is equivalent to about 1 quadrillion BTUs (Quad).

The Outlook for Energy includes Exxon Mobil Corporation's internal estimates and forecasts of energy demand, supply, and trends through 2040 based upon internal data and analyses as well as publicly available information from external sources including the International Energy Agency. This report includes forward-looking statements. Actual future conditions and results (including energy demand, energy supply, the relative mix of energy across sources, economic sectors and geographic regions, imports and exports of energy) could differ materially due to changes in economic conditions, technology trends, development of new supply sources, political events, demographic changes, and other factors discussed herein and under the heading "Factors Affecting Future Results" in the Investors section of our website at www.exxonmobil.com.

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Exhibit S59

More Exxon Documents Show How Much It Knew About Climate 35 Years Ago

Documents reveal Exxon's early CO2 position, its global warming forecast from the 1980s, and its involvement with the issue at the highest echelons.

BY NEELA BANERJEE, INSIDECLIMATE NEWS

DEC 1, 2015

A Mobil logo is painted on a storage tank at the Exxon Mobil refinery in Joliet, Illinois. Credit: Scott Olson/Getty Images

In our series, "**Exxon: The Road Not Taken**," InsideClimate News published **several dozen documents** that established the arc of Exxon's pioneering yet little-known climate research, which began 40 years ago.

Our reporting team chose them from the thousands of mainly internal company documents that we reviewed in our 10-month investigation.

In addition to the ones we have already published since September—which ExxonMobil has now downloaded from the ICN website and **imported to its blog**—there are more worth sharing.

Each illuminates a nuance of Exxon's early internal discussions about **climate change**, from interactions at the highest echelons to presentations for the rank-and-file. The documents reveal the contrast between Exxon's initial public statements about climate change and the company's later efforts to deny the link between fossil fuel use and higher global temperatures.

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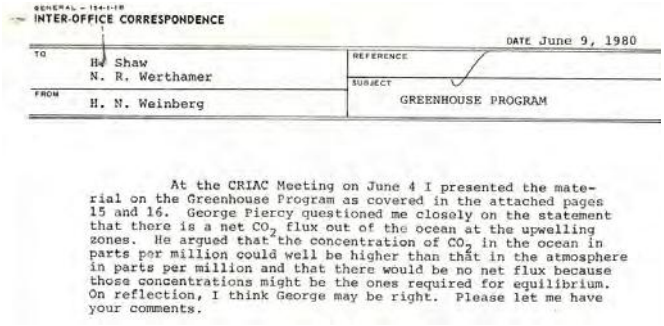
BY JOHN H. CUSHMAN JR.

A selection of previously unpublished memos and reports are included and explained here, as part of ICN's continuing exploration of Exxon's climate documents.

Exxon Senior Vice President Weighs in on the 'Greenhouse Program' (1980)

*This **memo from June 9, 1980**, indicates that carbon dioxide research was not a project that Exxon's board simply greenlighted. It was an issue so important that at least one senior vice president was paying close attention to the science, and he was interested and versed enough to argue its arcana.*



INTER-OFFICE CORRESPONDENCE

DATE June 9, 1980

TO H. Shaw
N. R. Werthamer

REFERENCE

FROM H. N. Weinberg

SUBJECT GREENHOUSE PROGRAM

At the CRIAC Meeting on June 4 I presented the material on the Greenhouse Program as covered in the attached pages 15 and 16. George Piercy questioned me closely on the statement that there is a net CO_2 flux out of the ocean at the upwelling zones. He argued that the concentration of CO_2 in the ocean in parts per million could well be higher than that in the atmosphere in parts per million and that there would be no net flux because those concentrations might be the ones required for equilibrium. On reflection, I think George may be right. Please let me have your comments.

Click to view the full document.

On June 9, 1980, **Harold N. Weinberg, a top manager in Exxon Research and Engineering**, the hub of the company's carbon dioxide research, sent a note to **Richard Werthamer** and **Henry Shaw** with the subject, "Greenhouse Program," the company's CO_2 research initiative. Shaw was the unit's lead climate researcher at the time, Werthamer his boss.

In the note, Weinberg wrote that he gave a presentation at a June 4 meeting about the program and said, "**George Piercy** questioned me closely on the statement that there is a net


Methane Seeps Out as Arctic Permafrost Starts to Resemble Swiss Cheese
BY BOB BERWYN


Ranchers Fight Keystone XL Pipeline by Building Solar Panels in Its Path
BY PHIL MCKENNA


Climate Contrarian Gets Fact-Checked by MIT Colleagues in Open Letter to Trump
BY ZAHRA HIRJI


USDA Staff Were Coached Not to Say 'Climate Change,' Emails Show
BY GEORGINA GUSTIN


Scrapping Climate Protections Would Erase $300 Billion in Benefits, Study Finds
BY NICHOLAS KUSNETZ

CO_2 flux out of the ocean at the upwelling zones."

At the time, Exxon had deployed a state-of-the-art supertanker outfitted with equipment for measuring marine CO_2 concentrations to understand the role the oceans play in the world's carbon cycle. Scientists knew that the oceans had absorbed some of the carbon dioxide released from the increased global consumption of fossil fuels. But Exxon's researchers wanted to understand how exactly CO_2 behaved in the oceans—and whether after trapping the gas, the seas would eventually release it into the atmosphere.

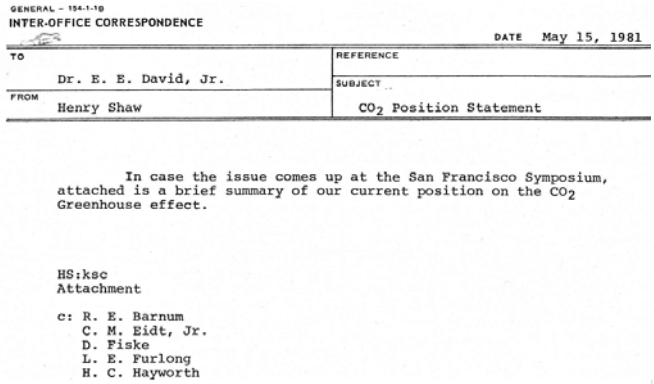
Piercy was a senior vice president at Exxon in 1980, and a member of the board of directors. According to the note, he challenged Weinberg's assertion that global circulation patterns move CO_2 out of the deep oceans to the surface where it escapes into the atmosphere, a process known as "upwelling."

Piercy disagreed, arguing the oceans can hold higher concentrations of CO_2 without releasing it into the air. (As it turns out, Weinberg was right, though overall, the world's oceans act as a global sink, pulling CO2 from the air into the water and helping dampen the effects of climate change.)

Other memos from the early 1980s (**here** and **here**) show that ER&E staff regularly apprised at least one other senior vice president, M.E.J. O'Loughlin, of the latest climate research, too.

Exxon's Lead Climate Researcher Presents: The Company's Position on the CO_2 Greenhouse Effect (1981)

*In **this May 15, 1981 memo**, Exxon estimates a 3-degree Celsius rise in global average temperatures in 100 years, and appears ready to discuss publicly that a time could arrive when the world would have to shift to renewable energy. Exxon thought such a transition could happen in a gradual, "orderly" way.*



GENERAL – 154-1-10
INTER-OFFICE CORRESPONDENCE

DATE May 15, 1981

TO Dr. E. E. David, Jr.

REFERENCE

FROM Henry Shaw

SUBJECT CO_2 Position Statement

In case the issue comes up at the San Francisco Symposium, attached is a brief summary of our current position on the CO_2 Greenhouse effect.

HS:ksc
Attachment

c: R. E. Barnum
C. M. Eidt, Jr.
D. Fiske
L. E. Furlong
H. C. Hayworth

Click to view the full document.

By 1981, Exxon had already established itself as a leader on the greenhouse effect with many in industry and the government. In early May of that year, Henry Shaw prepared a "brief summary of our current position on the CO_2 Greenhouse effect" for **Edward E. David, Jr.**, president of Exxon Research and Engineering, in case the topic came up at an Exxon symposium in San Francisco where David would be speaking.

Based on documentary evidence, it appears the summary went through several drafts and the final version went to David's office on May 15.

The bullet points that Shaw presented to David start with the idea that "there is sufficient time to study the problem before corrective action is required." Shaw based his caution on estimates that higher global temperatures caused by

BY JOHN H. CUSHMAN JR.

Exxon's Own Research Confirmed Fossil Fuels' Role in Global Warming Decades Ago

BY NEELA BANERJEE, LISA SONG AND DAVID HASEMYER

Exxon Believed Deep Dive Into Climate Research Would Protect Its Business

NEELA BANERJEE, LISA SONG, DAVID HASEMYER

rising CO_2 would only be felt around the year 2000, and that CO_2 concentrations in the atmosphere would double in about 100 years. Those gaps, Shaw wrote, permit "time for an orderly transition to non-fossil fuel technologies should restrictions on fossil fuel use be deemed necessary."

The document did not raise doubts about the links between fossil fuel use, higher CO_2 concentrations and a warmer planet. Shaw wrote:

> • "Atmospheric CO_2 will double in 100 years if fossil fuels grow at 1.4%/ a^2.
> • 3°C global average temperature rise and 10°C at poles if CO_2 doubles.
> —Major shifts in rainfall/agriculture
> —Polar ice may melt"

Eleven other staff and managers at Exxon Research, besides David, were sent the paper with the corporate position on global warming that Shaw had articulated.

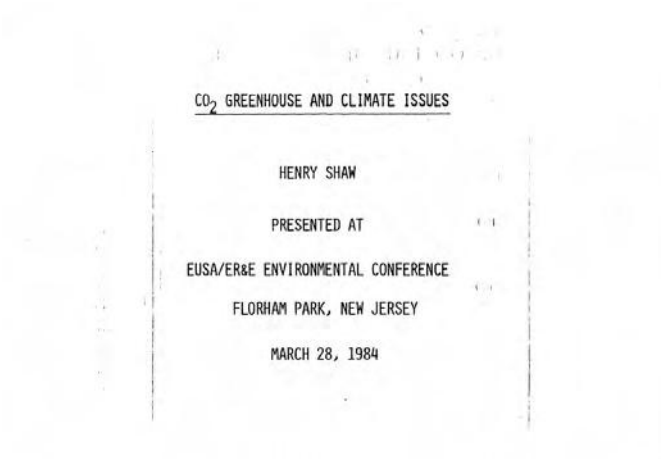
By the end of the 1980s, Exxon would publicly pivot away from open consideration of any restrictions on fossil fuel use because of its effect on the atmosphere.

In 1996, when climate research was more certain about the link between fossil fuel combustion and climate change than during the time of Shaw's memo, Exxon's new chairman and chief executive **Lee Raymond said in a speech in Detroit:** "Currently, the scientific evidence is inconclusive as to whether human activities are having a significant effect on the global climate."

At Exxon's annual meeting in 2015, chairman Rex Tillerson said it would be best to wait for more solid science before acting on climate change. "What if [after] everything we do, it turns out our models are lousy, and we don't get the effects we predict?"

A Presentation on 'CO_2 Greenhouse and Climate Issues' (1984)

Exxon began incorporating CO_2 estimates into its corporate planning as early as 1981, ***this March 28, 1984 presentation shows****. The company acknowledged the link between fossil fuel use and climate change throughout most of the 1980s.*


CO_2 GREENHOUSE AND CLIMATE ISSUES

HENRY SHAW

PRESENTED AT

EUSA/ER&E ENVIRONMENTAL CONFERENCE

FLORHAM PARK, NEW JERSEY

MARCH 28, 1984

Click to view the full document.

In 1984, Shaw no longer ran Exxon's CO_2 research. He had been moved from that post a few years earlier as the company shifted its focus from the expensive empirical research on the tanker to cheaper, yet still highly significant, climate modeling. By the mid-1980s, Shaw worked on keeping track of emerging independent climate research and apprising top managers.

On March 28, Shaw gave a presentation at an internal Exxon environmental conference in Florham Park, N.J. He showed projections of fossil fuel use through the 21st century and the growth in global carbon dioxide expected from it.

Shaw told his audience that he was regularly asked to prepare estimates for Exxon about CO_2 from fossil fuel use. Those estimates used and were integrated into the company's energy projections for the 21st century and circulated within Exxon.

He wrote in the presentation: "As part of CPPD's technology forecasting activities in 1981, I wrote a CO_2 greenhouse forecast based on publically available information. Soon thereafter, S&T [Science & Technology] requested an update of the forecast using Exxon fossil fuel projections. This request was followed late in 1981 with a request by CPD [Corporate Planning Department] for assistance in evaluating the potential impact of the CO_2 effect in the '2030 Study.' After meeting CPD's specific need, a formal technology forecast update was issued to S&T in the beginning of April 1982. It was subsequently sent for review to the Exxon affiliates."

Exxon's affiliates are the company's various divisions, including exploration and production, refining, international units and shipping.

Then Shaw shared with his audience estimates by Exxon and three other entities—the Environmental Protection Agency, the National Academy of Sciences, and the Massachusetts Institute of Technology—about when CO_2 would double in the atmosphere, what kind of

increases could occur in average global temperatures and the effects of such changes on human life.

Exxon estimated that CO_2 would double by 2090, which was later than what the other groups had projected. It estimated that average global temperatures would rise by 1.3 to 3.1 degrees Celsius (2.3 to 5.6 degrees Fahrenheit), which was in the mid-range of the four projections that Shaw shared.

Shaw showed the policy recommendations of the three organizations and Exxon to address climate change. According to him, MIT argued for an "extreme reduction in fossil fuel use," while the others, including Exxon, urged a more cautious approach. But Exxon did not deny the link between fossil fuel use and climate change as it would begin to do just five years later.

ICN reporter Lisa Song contributed to this report.

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Like Exxon, Utilities Knew about Climate Change Risks Decades Ago

BY JOHN H. CUSHMAN JR.

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Exhibit S60

CO_2 GREENHOUSE AND CLIMATE ISSUES

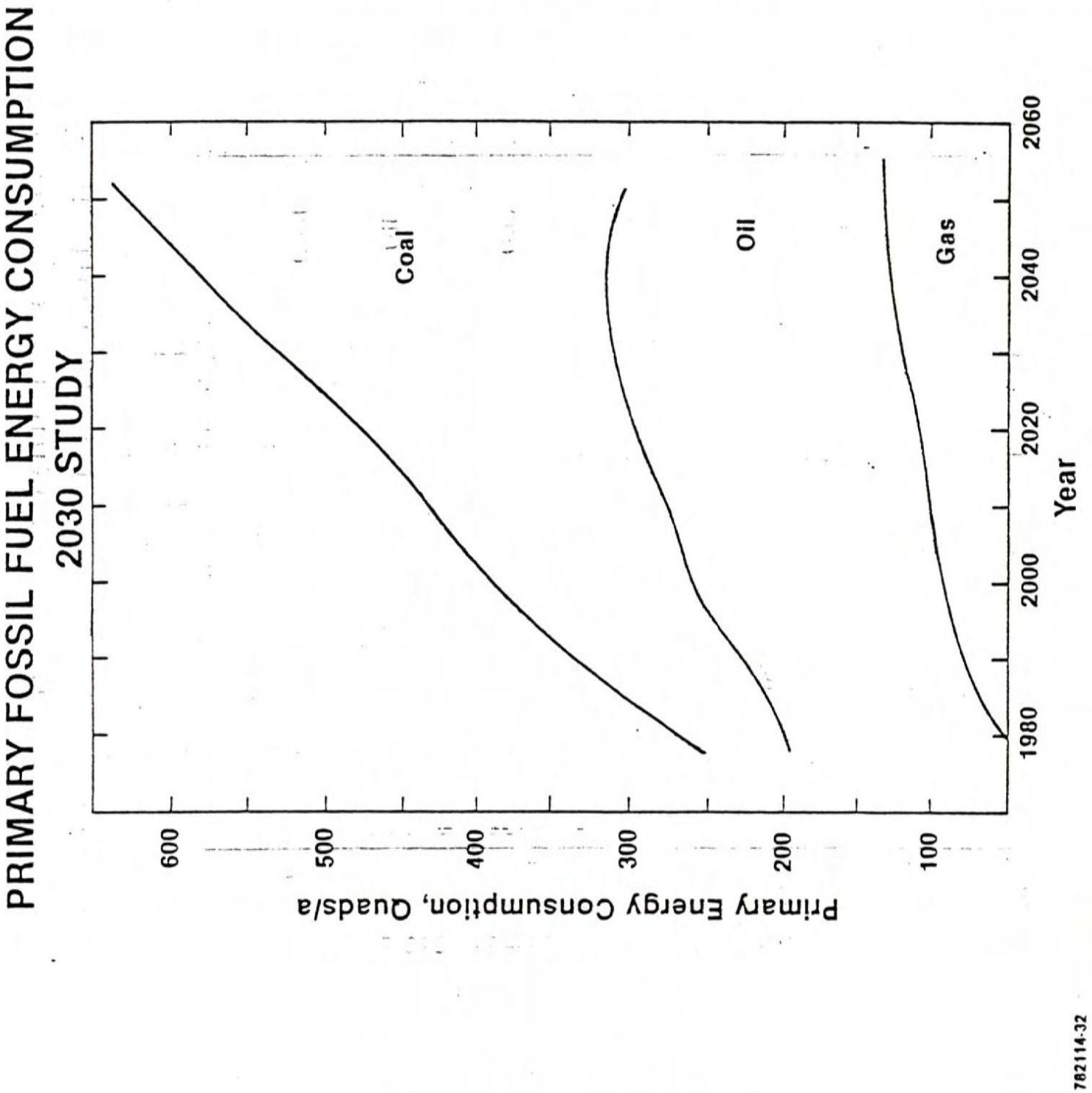
HENRY SHAW

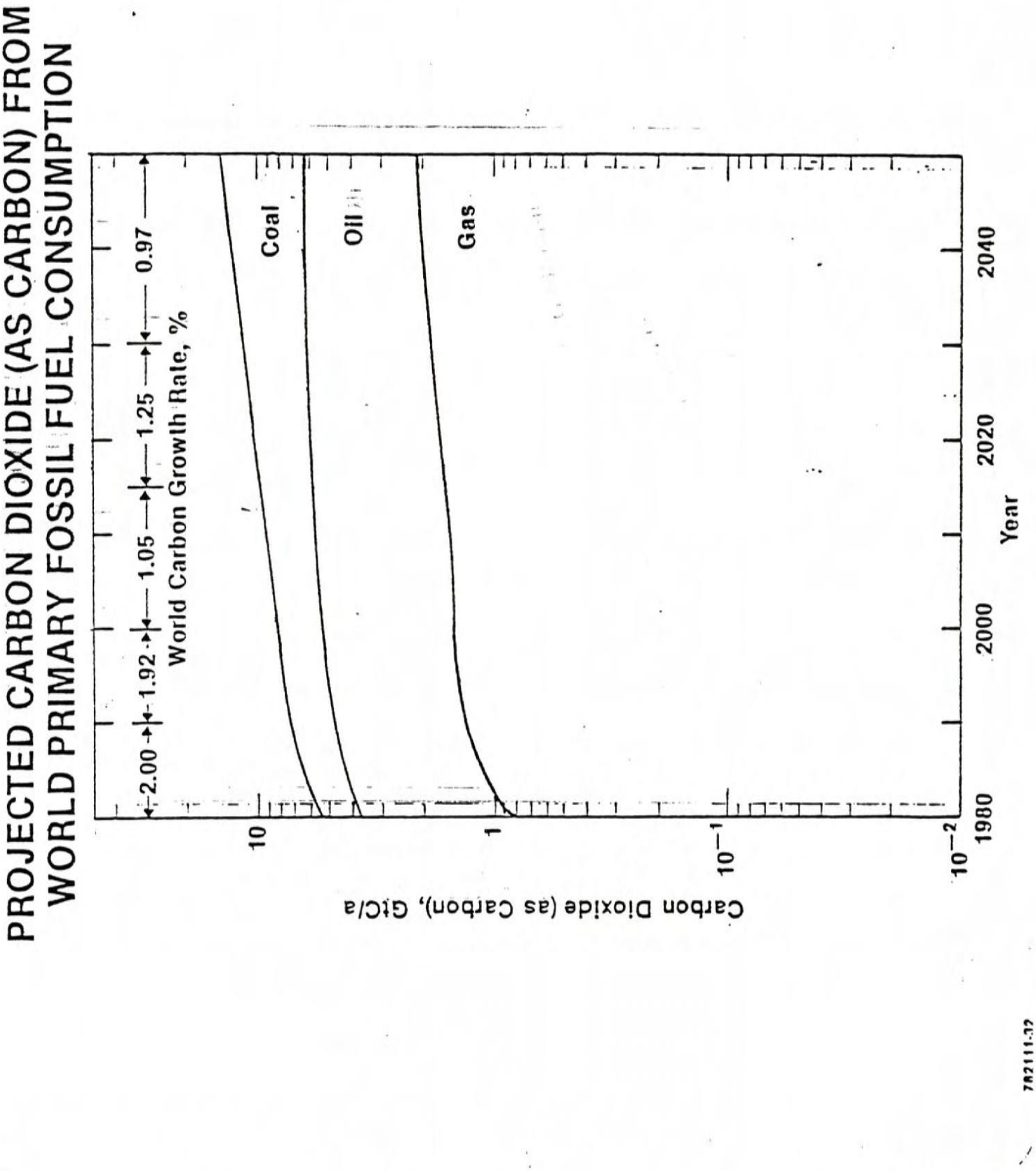
PRESENTED AT

EUSA/ER&E ENVIRONMENTAL CONFERENCE

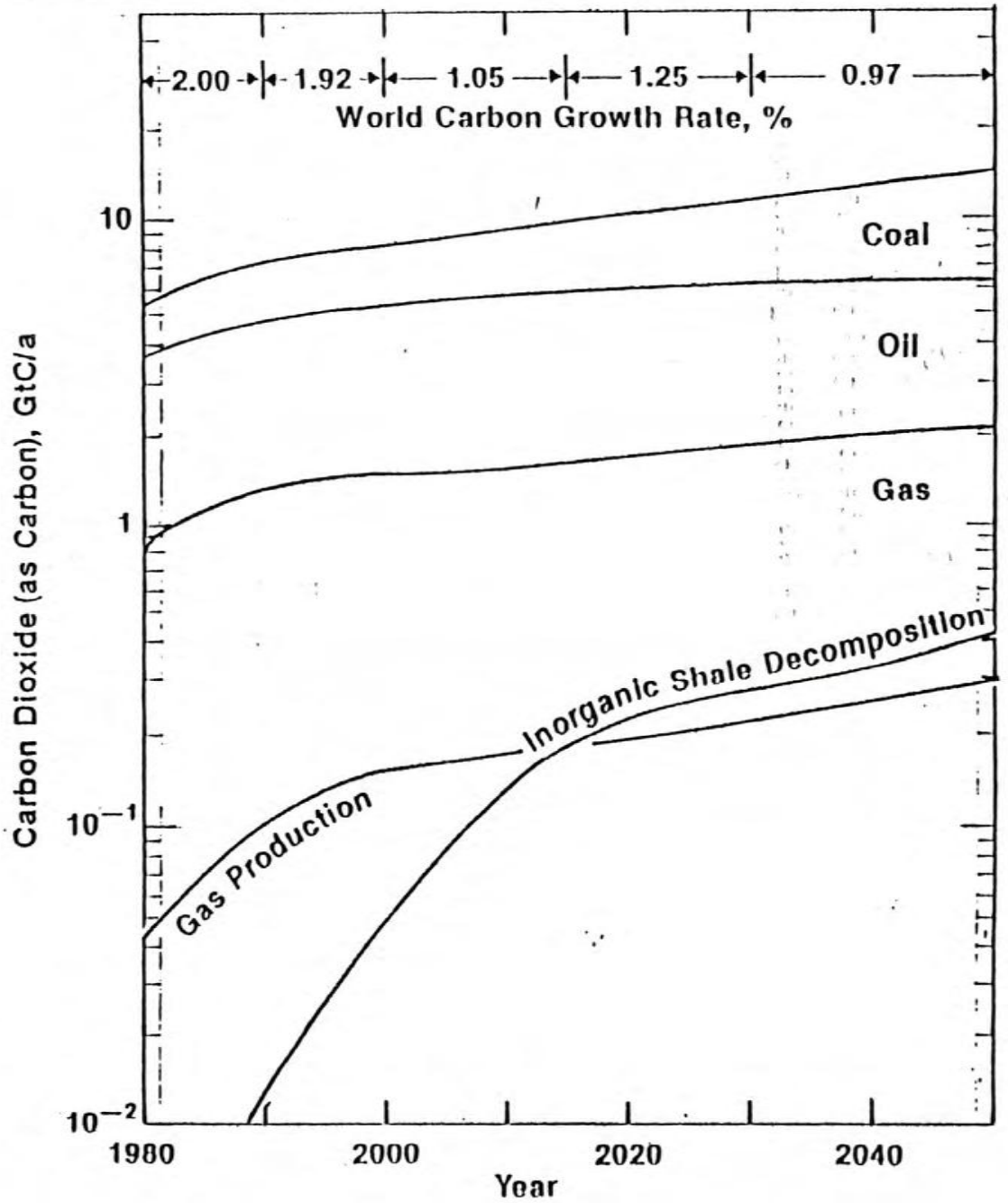
FLORHAM PARK, NEW JERSEY

MARCH 28, 1984


PRIMARY FOSSIL FUEL ENERGY CONSUMPTION
2030 STUDY
Coal
Oil
Gas
Primary Energy Consumption, Quads/a
600
500
400
300
200
100
1980
2000
2020
2040
2060
Year
782114-32


PROJECTED CARBON DIOXIDE (AS CARBON) FROM
WORLD PRIMARY FOSSIL FUEL CONSUMPTION
Carbon Dioxide (as Carbon), GtC/a
10
1
10^{-1}
10^{-2}
1980
2000
2020
2040
Year
Coal
Oil
Gas
World Carbon Growth Rate, %
2.00
1.92
1.05
1.25
0.97

PROJECTED CARBON DIOXIDE (AS CARBON) FROM WORLD PRIMARY FOSSIL FUEL CONSUMPTION



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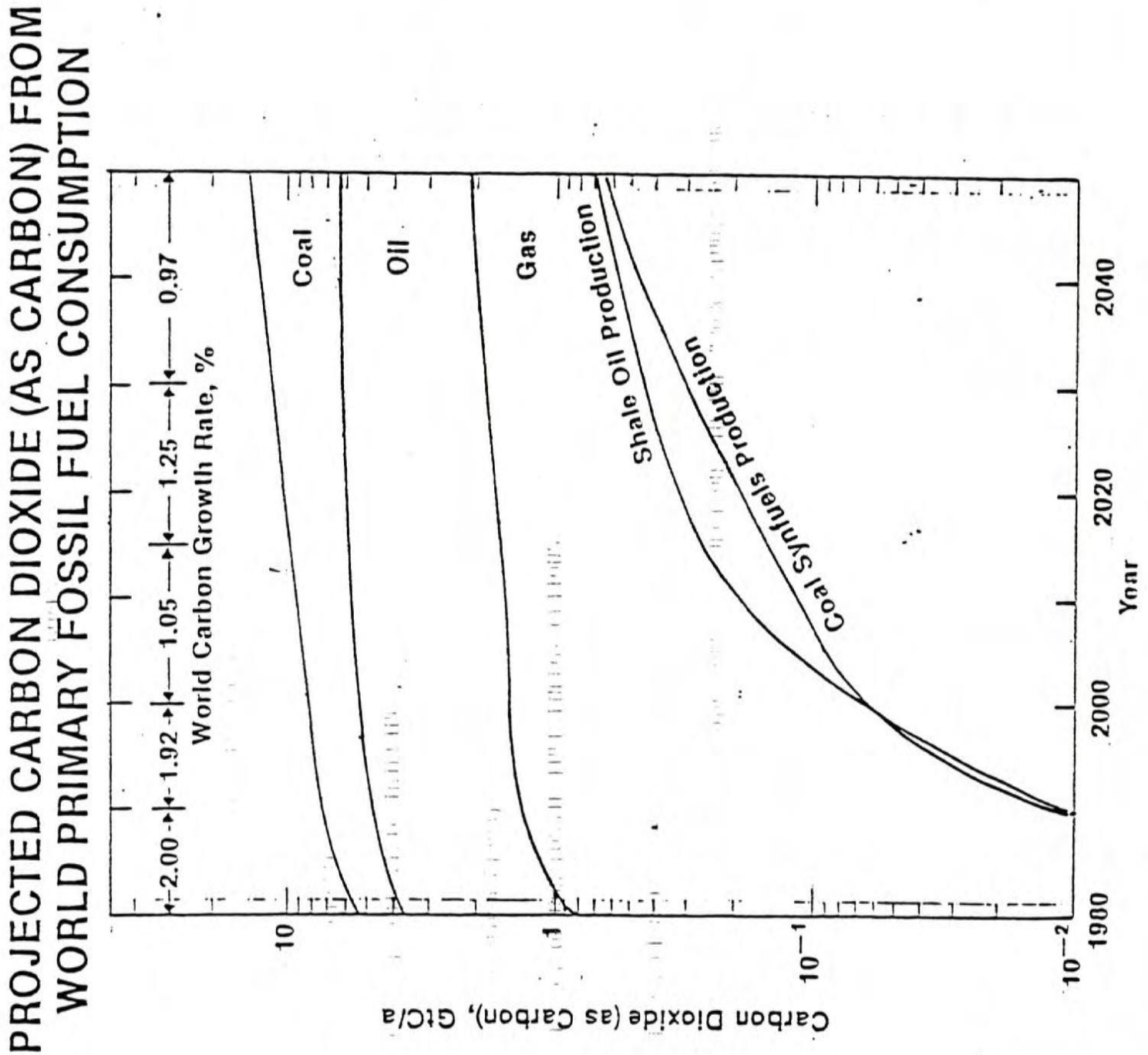

PROJECTED CARBON DIOXIDE (AS CARBON) FROM WORLD PRIMARY FOSSIL FUEL CONSUMPTION
World Carbon Growth Rate, %
2.00
1.92
1.05
1.25
0.97
Coal
Oil
Gas
Shale Oil Production
Coal Synfuels Production
Carbon Dioxide (as Carbon), GtC/a
10
1
10^{-1}
10^{-2}
1900
2000
2020
2040
Year

RESULTS/EFFECTS

	EPA	NRC/NAS	MIT	EXXON
• TIME FOR CO_2 DOUBLING	2060	2075	-	2090
• AVERAGE TEMPERATURE RISE	3^oC	$\sim 2^oC$	$1.5\text{-}4.5^oC$	$1.3 - 3.1^oC$
• OTHER GASES IMPACT	-1.6 to 3.3^oC	$\sim 1^oC$	-	-
• SEA LEVEL RISE	150 cm, 2040 215 cm, 2100	70 cm 2080 ($3\text{-}4^oC$ rise)	-	-
• PRECIPITATION	POSSIBLE MAJOR CHANGES	DRIER MIDWEST	SIGNIFICANT, BUT UNPREDICTABLE	-
• AGRICULTURAL	PLUSES & MINUSES	BENEFITS WILL BALANCE DEBITS	SIGNIFICANT, BUT UNPREDICTABLE	-
• AIRBORNE CO_2 FRACTION	0.6 to 0.8	0.4 - 0.6	0.4 to 0.6	0.53
• IMPACT OF ALTERNATE ENERGY SOURCES	SMALL	INSENSITIVE	LARGE	INSENSITIVE

CONCLUSIONS/RECOMMENDATIONS

EPA

THERE IS LITTLE WE CAN DO EXCEPT LEARN TO ADAPT TO A WARMER CLIMATE.

LEGISLATION IS UNLIKELY TO HAVE MUCH EFFECT.

NRC/NAS

WE MUST RESOLVE UNCERTAINTIES THROUGH RESEARCH. ENERGY TAXES CAN HAVE AN IMPACT.

LEGISLATION IS PREMATURE.

MIT/STANFORD

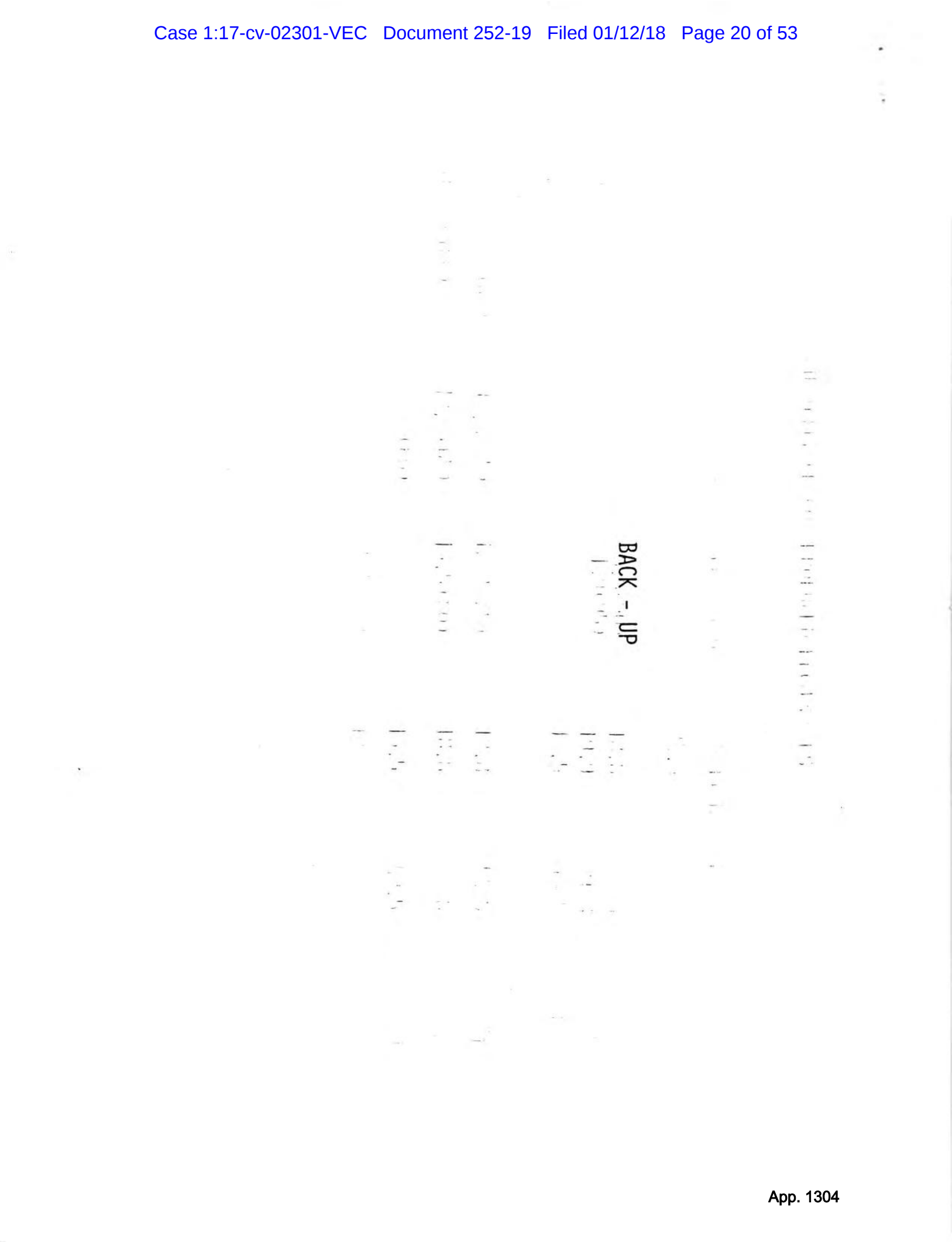
WE MUST START TALKING TO POLICY MAKERS. SUGGEST EXTREME REDUCTION IN FOSSIL FUEL USE THROUGH CONSERVATION AND ALTERNATE TECHNOLOGIES USING ELECTRICITY. NUCLEAR CAN HAVE IMPACT.

INTERNATIONAL DEBATE ON LEGISLATION IS NEEDED.

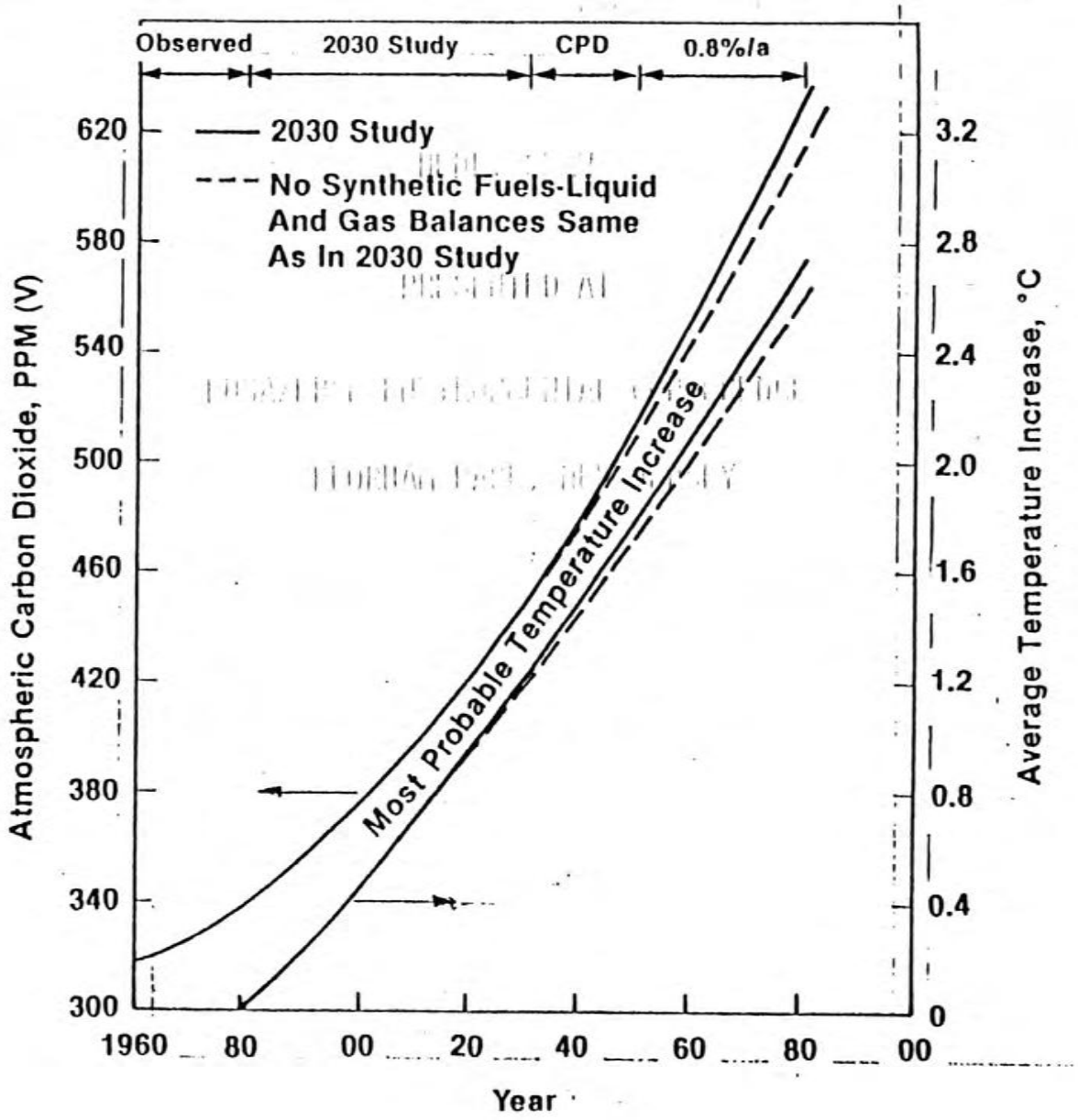
EXXON

THERE IS ADEQUATE TIME TO STUDY THE PROBLEM.

LEGISLATION IS PREMATURE.


BACK - UP

GROWTH OF ATMOSPHERIC CO_2 AND INSTANTANEOUS GLOBAL TEMPERATURE INCREASE AS A FUNCTION OF TIME



QUANTITY OF CO_2 PRODUCED FROM FUELS

MTC/EJ PRODUCT (% EFFICIENCY)

FUEL	PRODUCTION	REFINING	COMBUSTION	TOTAL	RATIO TO GAS
COAL	-	-	24.3	24.3	1.8
PETROLEUM					
GASOLINE	-	5.5(90)	18.8	24.3	1.8
FUEL OIL		1.9(95)	19.9	21.8	1.6
NATURAL GAS	-	-	13.5	13.5	1.0
COAL SYNTHETICS					
H-COAL (GASOLINE)	18.5(65)	17.2(75)	18.8	54.5	4.1
EDS (GASOLINE)	18.5(65)	13.5(80)	18.8	50.8	3.8
SNG	27 (60)	-	13.5	40.5	3.0
SHALE OIL (GASOLINE)	13.9(75)	6.5(88)	18.8	39.2	2.9
ELECTRICITY FROM COAL	67.4(36)			67.4	5.0

CO_2 GREENHOUSE AND CLIMATE ISSUES

AS PART OF CPPD's TECHNOLOGY FORECASTING ACTIVITIES IN 1981, I WROTE A CO_2 GREENHOUSE FORECAST BASED ON PUBLICALLY AVAILABLE INFORMATION. SOON THEREAFTER, S&T REQUESTED AN UPDATE OF THE FORECAST USING EXXON FOSSIL FUEL PROJECTIONS. THIS REQUEST WAS FOLLOWED LATE IN 1981 WITH A REQUEST BY CPD FOR ASSISTANCE IN EVALUATING THE POTENTIAL IMPACT OF THE CO_2 EFFECT IN THE "2030 STUDY". AFTER MEETING CPD'S SPECIFIC NEED, A FORMAL TECHNOLOGY FORECAST UPDATE WAS ISSUED TO S&T IN THE BEGINNING OF APRIL 1982. IT WAS SUBSEQUENTLY SENT FOR REVIEW TO THE EXXON AFFILIATES. THE PRIMARY FOSSIL FUEL VOLUMETRIC PROJECTIONS WERE CONVERTED TO AN ENERGY BASIS IN QUADS/YEAR, AS SHOWN ON THE

VG-1 FIRST VUGRAPH. SINCE SHALE LOSSES WERE NOT INCLUDED BY CPD, THEY WERE ESTIMATED AND ADDED TO OIL ENERGY. THE TOTAL CARBON CONTENT PER UNIT ENERGY OF THE U.S. RESOURCES OF COAL AND OIL SHALE WERE AVERAGED IN ORDER TO CALCULATE LBS. CO_2/MBTU FOR EACH RESOURCE:

		RATIO
OIL	= 170 LBS. CO_2/MBTU	1.5
GAS	= 115	1.0
COAL	= 207	1.8

THESE NUMBERS WERE CHECKED AGAINST SOME INFORMATION ON WORLD RESOURCES AND FOUND TO BE ADEQUATE.

WE THEN ESTIMATED THE TOTAL CO_2 EMITTED FROM THE OXIDATION OF THESE

VG-2 FUELS, AS SHOWN IN THIS VUGRAPH. THIS IS A SEMILOG PLOT WHICH TENDS TO PICTORIALLY OVEREMPHASIZE THE IMPORTANCE OF GAS. WE CHOOSE THIS TYPE OF GRAPH TO ENABLE US TO SHOW CERTAIN DETAILS THAT WOULD BE HARD TO DETECT ON A LINEAR PLOT. THE RATE OF CO_2 EMISSIONS GROWS AT ABOUT A 20% HIGHER RATE THAN ENERGY. THIS IS DUE, IN PART, TO THE SHARP INCREASES IN THE USE OF COAL. OTHER FACTORS THAT CONTRIBUTE TO THE HIGHER CARBON GROWTH RATE ARE SHOWN ON

OL-1 (RED) OVERLAY #1 AND INCLUDE THE ENTRAINED CO_2 ASSOCIATED WITH NATURAL GAS IN GAS PRODUCTION GROWING FROM ABOUT 5% TO 15% IN 2050. SIMILARLY, U.S. OIL SHALES CONTAIN A FAIR AMOUNT OF CARBONATE-CONTAINING MINERALS CONSISTING PRIMARILY OF LIMESTONE AND DOLOMITE WHICH DECOMPOSE AS A FUNCTION OF RETORTING TEMPERATURE, FROM 25% AT RELATIVELY LOW TEMPERATURES SUCH AS CONVENTIONAL RETORTING TO 100% AT ELEVATED TEMPERATURES. WE ASSUMED, VERY CONSERVATIVELY, THAT 65% OF THE CARBONATE-CONTAINING MINERALS WOULD DECOMPOSE IN PRODUCING SHALE OIL. THE CO_2 IN GAS PRODUCTION WAS ADDED TO THE CO_2 EMISSIONS FROM GAS, AND THE SHALE CARBONATE DECOMPOSITION WAS ADDED TO CO_2 EMISSIONS FROM OIL. IN ADDITION, THE PROCESSING OF COAL AND OIL SHALE TO FUELS RESULTS IN A FAIR AMOUNT OF CO_2

OL-2 (BLUE) PRODUCTION. THIS IS SHOWN ON OVERLAY #2.

THE CLIMATIC EFFECT OF NOT HAVING A SYNFUELS INDUSTRY AND NOT EMITTING CO_2 IN NATURAL GAS PRODUCTION, I.E., SUBTRACTING THE CO_2 PRODUCED

VG-2 FROM THE SOURCES MENTIONED IN THE TWO OVERLAYS OF VUGRAPH #2, WOULD BE TO DELAY THE DOUBLING TIME BY ABOUT 5 YEARS.

OUR NEXT TASK IS TO CONVERT THE AMOUTN OF CO_2 EMITTED FROM FOSSIL FUEL OXIDATION INTO A PROJECTION OF HOW IT MAY IMPACT ON CLIMATE. THIS, HOWEVER, REQUIRES A NUMBER OF ASSUMPTIONS. FIRST OF ALL, WE MUST ESTIMATE HOW MUCH OF THE CO_2 STAYS IN THE ATMOSPHERE. THIS MUST BE CHECKED BY CONDUCTING A CARBON BALANCE AROUND THE EARTH. WE ASSUMED THAT ABOUT 1/2 OF THE CO_2 GENERATED FROM FOSSIL FUELS REMAINS IN THE ATMOSPHERE. THIS IS A CONSERVATIVE ASSUMPTION SINCE A FAIR AMOUNT OF CO_2 CAN BE TRACED TO DEFORESTATION. SECOND, WE MUST ESTIMATE HOW MUCH CO_2 EXISTED IN THE ATMOSPHERE PRIOR TO THE INDUSTRIAL REVOLUTION BECAUSE CO_2 CONCENTRATION WAS ASSUMED CONSTANT UP TO THAT TIME. THERE ARE TWO SCHOOLS OF THOUGHT, DEPENDING ON THE METHOD OF CHEMICAL ANALYSIS. ISOTOPE MEASUREMENTS IN TREE-RINGS INDICATE THAT THE ATMOSPHERE CONTAINED 260 TO 270 PPM CO_2 PRIOR TO THE INDUSTRIAL REVOLUTION. CORRECTIONS TO MEASUREMENTS ACTUALLY CARRIED OUT ABOUT THAT TIME INDICATE THE CONCENTRATION TO HAVE BEEN 290 TO 300 PPM CO_2. THIRD, WE MUST ESTIMATE WHEN THE CO_2 EFFECT WILL EXCEED THE CLIMATIC NOISE THRESHOLD OF $0.5^{o}C$.

A GRAPH SHOWING ALL THESE ASSUMPTIONS IS REPRODUCED ON THE LAST

VG-3 VUGRAPH. MOST CLIMATOLOGISTS ASSUME THAT THE CO_2 EFFECT WILL BE DETECTABLE BY THE YEAR 2000. IF SO, WE MUST TAKE INTO ACCOUNT THAT IT TAKES ABOUT TWO DECADES TO EQUILIBRATE THE OCEANS TO A NEW TEMPERATURE. THUS, THE THRESHOLD WOULD OCCUR AT 340 PPM CO_2 AND WOULD CAUSE A TEMPERATURE RISE OF $3^{o}C$ IN 2090 WHEN THE CURRENT AMOUNT OF ATMOSPHERIC CO_2 WOULD DOUBLE, IF THE PRE-INDUSTRIAL CONCENTRATION HAD BEEN BETWEEN 290 AND 300 PPM. IF THE PREINDUSTRIAL CO_2 HAD BEEN BETWEEN 260 AND 270 PPM, THEN A DOUBLING WOULD CAUSE A $2^{o}C$ RISE IN GLOBAL AVERAGE TEMPERATURE. THESE VALUES FALL TOWARD THE LOWER END OF THE GENERALLY ACCEPTED TEMPERATURE RANGE FOR A DOUBLING OF $3 \pm 1.5^{o}C$, AND ARE CONSISTENT WITH THE RECENTLY PUBLISHED 50TH PERCENTILE LINE IN THE NAS REPORT.

A 2 TO 3°C INCREASE IN GLOBAL AVERAGE TEMPERATURE CAN BE AMPLIFIED TO ABOUT 10°C AT THE POLES. THIS COULD CAUSE POLAR ICE MELTING AND A POSSIBLE SEA-LEVEL RISE OF 0.7 METER BY 2080. THE TIME SCALE FOR SUCH A CATASTROPHE IS MEASURED IN CENTURIES. OTHER POTENTIAL EFFECTS ASSOCIATED WITH A HIGH ATMOSPHERIC CO_2 CONCENTRATION AND A WARMER CLIMATE ARE:

- REDISTRIBUTION OF RAINFALL
- POSITIVE AND NEGATIVE CHANGES IN AGRICULTURAL PRODUCTIVITY
- ACCELERATED GROWTH OF PESTS AND WEEDS
- DETRIMENTAL HEALTH EFFECTS
- POPULATION MIGRATION

SOCIETY MUST CAREFULLY STUDY THE PROBLEM IN ORDER TO ESTABLISH A DESIRABLE COURSE OF ACTION. WE CAN EITHER ADAPT OUR CIVILIZATION TO A WARMER PLANET OR AVOID THE PROBLEM BY SHARPLY CURTAILING THE USE OF FOSSIL FUELS. THE GENERAL CONCENSUS IS THAT SOCIETY HAS SUFFICIENT TIME TO TECHNOLOGICALLY ADAPT TO A CO_2 GREENHOUSE EFFECT.

OUR CONCLUSION WAS RECENTLY REAFFIRMED BY A NUMBER OF STUDIES WHICH RECEIVED WIDE PRESS PUBLICITY. THESE STUDIES INCLUDE THOSE OF THE EPA, NRC/NAS, AND MIT/NSF AND ARE SUMMARIZED IN THE NEXT 4 VU-GRAPHS.

Exhibit S61

OPINION | COMMENTARY

Climate-Change Policies Can Be Punishing for the Poor

America should learn from Europe's failure to protect the needy while reducing carbon emissions.

By Bjorn Lomborg
Jan. 4, 2018 7:05 p.m. ET

77 COMMENTS

Freezing temperatures in the U.S. Northeast have pushed up heating costs, creating serious stress for many Americans. Although the rich world's energy poor are largely forgotten in discussions about climate policies, they bear an unfair burden for well-meaning proposals. That reality is being laid bare this icy winter as energy and electricity prices surge.

When we think about energy poverty, we imagine a lack of light in the world's worst-off nations, where more than one billion people still lack electricity. This is a huge challenge that the world can hope to address as it reduces poverty and expands access to grid electricity, largely powered by fossil fuels.

But there is a less visible form of energy poverty that affects even the world's richest country. Economists consider households energy poor if they spend 10% of their income to cover energy costs. A recent report from the International Energy Agency shows that more than 30 million Americans live in households that are energy poor—a number that is significantly increased by climate policies that require Americans to consume expensive green energy from subsidized solar panels and wind turbines.

Last year, for the first time, the International Energy Agency tried to calculate the global scale of this problem. The IEA estimates that in the world's rich countries—those that are members of the Organization for Economic Cooperation and Development—200 million people are in energy poverty. That includes 1 in 10 Americans, although the IEA notes that

the highest estimates for the U.S. approach 1 in 4.

PHOTO: GETTY IMAGES/ISTOCKPHOTO

People of modest means spend a significantly higher share of their income paying for their energy needs. One careful study of energy usage in North Carolina found that a lower-income family might spend more than 20% of its income on energy. Among people with incomes below 50% of the federal poverty line, energy costs regularly consumed more than a third of their budgets.

Europe, where renewable subsidies are about three times as high as in the U.S., provides a window into America's possible energy future. Higher costs from policies like stringent emissions caps and onerous renewable-energy targets make it even harder for the poorest citizens to afford gas and electricity. In Germany, more than 30% of the population spends at least one-tenth of income on energy. Some estimates show that half of Greeks are in energy poverty, according to the IEA.

Calls for government to take ever stronger action on climate change can seem like selfless appeals to democracy and shared responsibility: The gist is that everyone should carry the burden and pay more. But that isn't what happens. Policies aimed at addressing climate change can easily end up punishing the poor.

Around the world, subsidies to homeowners for erecting solar panels or installing insulation overwhelmingly go to the better-off. When the costs jump for electricity, heating a home, or filling up a car, the people most affected are those already struggling. Think of a retiree living in a chilly house or a minimum-wage worker driving to work every day.

In the U.K., the cost of electricity has increased by 36% in real terms since 2006, while the average income has risen only 4%. Environmentalists point out that energy usage has fallen as a result. But they ignore the fact that the poorest households cut back their consumption much more than average, while the richest have not reduced electricity consumption at all. Meanwhile, the share of income the bottom tenth of Britons spend on energy has increased rapidly, to almost 10%, while the share of income spent by the top tenth is still under 3%.

One 2014 poll shows that one-third of British elderly people leave at least part of their homes cold, and two-thirds wear extra layers of clothing, because of high energy costs. According to a report in the Independent, 15,000 people in the U.K. died in the winter of 2014-15 because they couldn't afford to heat their homes properly.

Climate change is a real challenge for every country, but we need to maintain some perspective. The United Nations' climate-change panel estimates that global warming could cause damage amounting to 2% of global gross domestic product toward the end of

the century. That makes it a problem, but not the Armageddon produced by some feverish imaginations.

The best macroeconomic estimates suggest that meeting the energy commitments reflected in the Paris Agreement on climate change would cost the world about $1 trillion a year in slower growth and higher energy prices. When environmental campaigners claim that more draconian cuts are needed, they aren't thinking of the people who will be most affected by sharply increasing energy bills.

Instead of trying to slow growth, governments should accelerate spending in green-energy research so that alternative energy becomes cheaper and more efficient than fossil fuels. The solution to climate change need not punish the poor.

Mr. Lomborg is president of the Copenhagen Consensus Center and author of "The Skeptical Environmentalist" and "Cool It."

What to Read Next...

BUSINESS

How Companies Are Pushing Ahead on Climate-Change Targets

Exhibit S62

DAILY POLITICS

NY Attorney General Eric Schneiderman, citing ongoing probe, stays silent on Moreland Commission controversy

BY GLENN BLAIN Follow / NEW YORK DAILY NEWS / Friday, August 1, 2014, 3:57 PM

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JEFFERSON SIEGEL/NEW YORK DAILY NEWS

State Attorney General Eric T. Schneiderman declined to comment on Moreland Commission

Aside from describing his lunch with U.S. Attorney Preet Bharara earlier this week as “delicious,” state Attorney General Eric Schneiderman said little else Friday about the ongoing Moreland Commission controversy.

Following a public appearance in Schenectady to announce $20 million in new funding for land banks, Schneiderman was peppered with questions from reporters about the controversy and whether he knew of any interference by Gov. Cuomo into the workings of the anti-corruption Moreland panel.

“I think you may have heard that that is the subject of an ongoing federal investigation and I don’t comment on ongoing investigations,” Schneiderman said. “My office is cooperating with United States Attorney and we’ll leave it that.”

When asked he if he had been subpoenaed by Bharara’s office, Schneiderman responded: “I am not going to comment on an ongoing investigation and we have offered our assistance to the U.S. Attorney’s office and that’s about all I can say.”

Unlike Gov. Cuomo, Schneiderman said he has not

hired an attorney to represent him in the matter.

Scheiderman played a central role in the creation of the Moreland Commission. He joined Cuomo at the press conference last year announcing its formation and deputized its members as deputy attorneys general – giving them the power to probe the Legislature.

Earlier this week, Schneiderman and Bharara – who is investigating Cuomo's handling of the commission - were spotted having lunch together at a restaurant near city hall.

Republican John Cahill, who is running against Schneiderman this year, has repeatedly criticized Schneiderman for staying silent on the controversy and called on him to explain what he knew about Cuomo's actions.

TAGS: eric schneiderman , andrew cuomo , moreland commission , john cahill , preet bharara

JOIN THE CONVERSATION:

Exhibit S63

The Rockefellers vs. the Company That Made Them Rockefellers

The family that pioneered the oil industry in America wants to expose what Exxon hid from the public about climate change.

By REEVES WIEDEMAN
Photograph By BEN STECHSCHULTE

Descendants of John D. Rockefeller, from left: Miranda Kaiser, Peter Case, Rebecca Rockefeller Lambert and her husband, Michael Lambert, David Kaiser, and Neva Rockefeller Goodwin, in Seal Harbor, Maine.

01/07/2018 9:00 pm

John D. Rockefeller once said that "God gave me my money," much as He had given human beings dominion over the Earth, and though John D. couldn't have known it then, the original sin of the Rockefeller family would be committed in 1863, when he opened his first oil refinery in Cleveland. Within a few

decades, Standard Oil controlled more than 90 percent of petroleum production in the United States, and by the time of his death in 1937, God had given John D. a fortune that made him the richest man in the world.

As the 20th century wore on and John D.'s descendants converted the family's oil money into a broader empire — building Rockefeller Center, becoming governors, senators, vice-presidents — the world began its fossil-fuel-induced march, with increasing speed, toward environmental disaster. Climate change wasn't directly the Rockefellers' fault, of course: The family more or less got out of the oil business in 1911, when the Supreme Court deemed Standard Oil too big to exist, splitting it into 34 companies, including two that became ExxonMobil. And if John D. hadn't dug the wells, someone else would have. But as the 21st century dawned, it became impossible for younger Rockefellers to spend time at the family's island estate in Maine without recognizing that the waves lapping closer and closer to their home were the result, at least in part, of their good fortune.

All of which is how ExxonMobil found itself in federal court this past November arguing that the Rockefellers were funding a conspiracy against it. Judge Valerie Caproni of the Southern District of New York was hearing the latest arguments in a legal battle that had begun

more than two years prior, when members of the Rockefeller clan, in their latest attempt to pressure the erstwhile family business to deal with climate change, funded journalists who uncovered documents showing Exxon had known about the dangers of burning fossil fuels for decades while publicly denying it was much of a problem at all. The Rockefeller-backed reports had inspired multiple state attorneys general to investigate whether Exxon might be liable like tobacco companies that lied about the cancer risks of smoking had been.

“Didn’t Standard Oil grow up to be Exxon?” Caproni asked Justin Anderson, one of Exxon’s lawyers, after Anderson repeated Exxon’s conspiracy claim against the Rockefellers. “That’s ironic, don’t you think?”

“It’s disturbing, Judge,” Anderson said.

“No, it’s ironic — come on,” Caproni said.

“It could be both,” Anderson said. “Ironic and disturbing at the same time.”

“Fascinating,” Caproni said. “What happened to those Rockefellers?”

“Your Honor, what happened was they got on this bandwagon — ” Anderson said, before Caproni cut him off to interject: “They care whether subsequent Rockefellers can breathe.”

Twice a year, many of the 270 living descendants of John D. Rockefeller gather in New York for a family reunion. Attendance is nonmandatory and irregular — “Half of the 270 people I wouldn’t recognize,” said David Kaiser, one of John D.’s great-great-grandsons — and the activities range from the traditions of any family reunion (sharing baby photos, catching up) to the tasks required for maintaining one of America’s largest fortunes: debating, for instance, how to manage Kykuit, the family’s sprawling estate on the Hudson.

During the winter reunion in 2016, Kaiser stood at the front of a conference room at the Museum of Modern Art, which the family helped found. He was addressing a group of his relatives (uncles, cousins, his mom), some of whom wanted to air their grievances about an article detailing the climate allegations against Exxon that Kaiser had recently published in the New York Review of Books. Not every family member was thrilled with their sudden collective position as anti-Exxon crusaders. For one thing, a significant portion of the family's wealth is still tied up in Exxon stock. "If Exxon's stock price suffers, the whole family will lose money," Kaiser said.

While the Rockefellers have been overtaken by more modern fortunes, they remain America's 23rd-richest family, tied with the Butts (Texas grocers) and one spot ahead of the Gallos (booze and cheese). For decades, Rockefellers have inhabited the most powerful circles of American society: John D.'s grandsons included Winthrop, a governor of Arkansas; David, the CEO of Chase; and Nelson, who was Gerald Ford's vice-president. "The members of that generation were the ultimate insiders," said Lee Wasserman, who runs the Rockefeller Family Fund. "They were able to sit down with any world leader they wanted."

Today's Rockefellers have comfortable nest eggs but relatively little of their ancestors' backroom influence. David Rockefeller, his generation's last surviving member, died in 2017, and Jay Rockefeller, who served as West Virginia's senator for 30 years, retired in 2015, leaving behind descendants who are academics, aspiring novelists, digital marketers, green architects, couture equestrianwear designers, and the owners of hip clothing stores in Minnesota. (In 2008, The Wall Street Journal reported that newer branches of the sprawling family tree would be unlikely to live solely off their ever-smaller slices of the Rockefeller trust.) If the Rockefellers have a modern means of exerting influence, it is primarily through their web of philanthropies: the Rockefeller Foundation, one of the country's largest private charities; the Rockefeller Brothers Fund, named for John D.

Jr.'s five sons — "There was also a sister, but times were different back then," Wasserman said — and the Family Fund, which the brothers created to encourage their children's philanthropy.

America's business titans have a tradition of turning, late in life, to charity. Andrew Carnegie gave away nearly 90 percent of his fortune, and Henry Ford left much of his to an eponymous foundation, which now has an endowment of $12 billion. But it is rare for an American dynasty to confront the source of its wealth. The Sacklers, for instance, recently passed the Rockefellers on the Forbes list of the country's wealthiest families, thanks to profits from OxyContin, now one of America's most abused drugs. They have donated many millions of dollars to museums, universities, and other institutions but have given next to nothing to combating the opioid epidemic.

The Rockefellers, however, have long been interested in environmental issues. The Family Fund, in particular, "came of age at a time when there was considerable tumult in society, and the interests of the cousins were those kinds of issues — the environment, economic justice for women, corporate accountability," said Wasserman, who is not a Rockefeller. Many of the family's newer members have adopted the wealthy liberal's preferred mix of safely progressive causes combined with a mild embarrassment at their inherited affluence: Several told me how much easier life was for those who had married out of the family name. When I asked Kaiser, the Family Fund's current board president, how much of the family's environmentalism stemmed from guilt, he demurred. "I always think it's sort of embarrassing when people talk about how proud they are of their great-great-grandfather," he said. "I don't think I get any credit for the good things he did. I also don't think I deserve any blame for any of the bad things." But others pointed out that, guilty or not, there was an element of atonement. "There's something about the moral imperative of what we're doing — or trying to 'undo,' " Peter Case, another of John D.'s great-great-grandsons, told me. "I mean, what would you do?"

Rex Tillerson and Lee Raymond in 2005. Photo: Donna McWilliam/AP Photo

The Rockefellers' campaign against Exxon began in 2003, when Neva Rockefeller Goodwin, an economist at Tufts and John D.'s great-granddaughter, co-sponsored a resolution at Exxon's annual shareholder meeting demanding the company study climate change's impact on its business. Investor activism was unusually plebeian for a Rockefeller — Goodwin's father, David Rockefeller, told her it was "mostly carried out by nuts" — and the resolution failed. But a year later, Goodwin and several other family members secured a meeting at Rockefeller Center with Exxon's head of investor relations. "We wanted to say, 'There's a crisis building, and you're part of it,' " Goodwin told me. The Exxon employees seemed surprised, she said, and responded by saying, "I guess our PR folks should be fired."

In 2006, Lee Raymond, Exxon's former CEO, invited David Rockefeller, who remained one of the most influential people in New York finance, to lunch with Rex Tillerson, who was taking over Raymond's job. Rockefeller had become concerned about climate change and asked that his daughter join them. Goodwin told me Raymond's staff initially objected on the grounds that "Tillerson didn't need to be subjected to that kind of thing," but her father insisted, and the foursome met at a seafood restaurant looking out on

the Rockefeller Center skating rink. (At Exxon's Texas headquarters, Raymond and Tillerson often ate in the company's Rockefeller Room.) Goodwin said she "was told to behave myself and not say much," but she managed to ask why the company wasn't investing more in alternative energy. "We tried that, and it didn't work," Raymond said. According to Goodwin, Tillerson largely deferred to Raymond.

The following year, Exxon earned the largest profit in American corporate history — $40.61 billion — but the 2006 release of Al Gore's An Inconvenient Truth had also served as a galvanizing moment for the environmental movement. During a meeting at the family's summer reunion at Kykuit, in a building decorated with portraits of their ancestors, a dozen Rockefellers agreed to take on Exxon in public. In 2008, Goodwin and several others held a press conference at the Parker Meridien Hotel to announce they were sponsoring three climate-change-related shareholder resolutions. "ExxonMobil needs to reconnect with the forward-looking and entrepreneurial vision of my great-grandfather," Goodwin said at the time, encouraging Exxon to pursue wind and solar energy just as John D. had embraced the shift from whale oil to petroleum. It was a relatively buttoned-up moment in the annals of activism — "These are people who were bred not to raise their voices too forcefully in public," Daniel Gross wrote in Slate, reviewing the press conference — and the resolutions were soundly defeated. The effort prompted a Wall Street Journal columnist to ask, "Do the Rockefellers still matter?"

A number of family members signed letters urging Tillerson to take action on climate change, but the company's response to one letter, Goodwin said, was, roughly, "If you don't like the company, sell your stock." Exxon — currently valued at $367 billion — had grown so large that, during the shareholder battle, Exxon said that the dissenting family members owned just .006 percent of its shares. Those Rockefellers who tried to sell their stock found that much of it was tied up in a trust whose managers rejected requests to divest.

When the Brothers Fund considered divesting from Exxon in favor of renewable-energy stocks, which it eventually did, some board members expressed concern about diminishing returns.

Meanwhile, the Family Fund had begun pursuing "a project that seemed potentially interesting but might not go anywhere," Kaiser said. In 2013, Wasserman met with Steve Coll, the dean of Columbia University's School of Journalism, who had published a book called Private Empire: ExxonMobil and American Power. As they discussed the fund's possible endowment of a reporting project on climate change, Coll said one topic from his book that had gone uninvestigated was the suggestion that what Exxon knew about climate change internally did not fit with its public proclamations. "Don't believe for a minute that ExxonMobil doesn't think climate change is real," a former Exxon manager had told Coll.

The Family Fund gave Columbia $550,000 to look into the topic. Around the same time, InsideClimate News, a website that covers the environment and receives significant funding from the Brothers Fund, began a similar investigation. Both sets of journalists say they initially looked into a number of fossil-fuel companies but it quickly became clear that Exxon had not only done the most robust climate research but had also sown doubt about climate change. When Coll gave an update to the Family Fund, he warned it that the soon-to-be published investigation would likely focus on Exxon.

So what did Exxon know? "There is general scientific agreement that the most likely manner in which mankind is influencing the global climate is through carbon-dioxide release from the burning of fossil fuels," James Black, an Exxon scientist, told company executives in 1977. "Present thinking holds that man has a time window of five to ten years before the need for hard decisions regarding changes in energy strategies might become critical." Five years later, an internal report declared that without "major reductions in fossil fuel combustion," a number of "potentially

catastrophic" events, such as the eventual flooding of "much of the US East Coast, including the State of Florida and Washington D.C.," could occur. The changes wouldn't come for decades, the report said, but "once the effects are measurable, they might not be reversible."

The journalistic investigations, published in late 2015 by InsideClimate News and the Los Angeles Times, which collaborated with Columbia, made it clear that while Exxon's scientists acknowledged the inherent uncertainty in predicting the future, they said that the scientific community had reached consensus and that Exxon had an "ethical responsibility" to study the problem and make its findings public. The company seemed to agree, spending $1 million in 1979 to outfit a supertanker with equipment to analyze carbon-dioxide levels along the ship's route between the Middle East and the Gulf of Mexico.

It wasn't surprising to find that Exxon, which employs some 16,000 scientists and engineers, was an early climate-research leader. "They have astrophysicists on their payroll, for Chrissakes," Kaiser said. What was surprising, and helpful to the journalists, was that some former Exxon employees turned out to be pack rats and had kept copies of decades-old reports. An early break came when InsideClimate News spoke to Mike MacCracken, a former government scientist whose great-grandfather, coincidentally, was John D. Rockefeller's legal counsel. ("We still have the silver tea set he gave my great-grandfather," MacCracken told me.) MacCracken had worked with Exxon in the 1980s and '90s and said its research was among the best, citing a 1985 report that concluded that the Earth would warm two to five degrees Celsius by 2100. "That's exactly what we'd say today," MacCracken said.

By the late '80s, the rest of the world had begun to grasp the problem; for 1988, Time named the "Endangered Earth" its second-ever nonhuman "Person of the Year," after "The Computer." By then, Exxon and other fossil-fuel companies had begun factoring climate change into their business decisions. "We considered climate change in a number of operational and planning issues," Brian Flannery,

Exxon's in-house climate adviser at the time, told the Columbia reporters. In 1989, Shell raised a natural-gas platform in the North Sea by several feet to accommodate rising sea levels, while engineers designing a pipeline owned by several companies, including Exxon, said they would have to account for the "considerable increase of the frequency of storms as a result of climate change." A researcher at an Exxon subsidiary even argued that climate change offered a silver lining as the company looked for oil in the Arctic: "Potential global warming can only help lower exploration and development costs."

EXXON RESEARCH AND ENGINEERING COMPANY

P.O. BOX 101, FLORHAM PARK, NEW JERSEY 07932

M. B. GLASER
Manager
Environmental Affairs Programs

Cable: ENGREXXON, N.Y.

November 12, 1982

CO_2 "Greenhouse" Effect

82EAP 266

TO: See Distribution List Attached

Attached for your information and guidance is briefing material on the CO_2 "Greenhouse" Effect which is receiving increased attention in both the scientific and popular press as an emerging environmental issue. A brief summary is provided along with a more detailed technical review prepared by CPPD.

The material has been given wide circulation to Exxon management and is intended to familiarize Exxon personnel with the subject. It may be used as a basis for discussing the issue with outsiders as may be appropriate. However, it should be restricted to Exxon personnel and not distributed externally.

Very truly yours,

M. B. Glaser

M. B. GLASER

MBG:rva

Attachments

H. N. WEINBERG
NOV 16 1982

What Exxon knew in 1982 : The company's scientists predicted dire effects from climate change.

Publicly, however, Exxon was working to cloud the debate. In 1988, an Exxon spokesperson wrote a memo arguing the company should "emphasize the uncertainty in scientific conclusions." In the decades to come, Exxon gave millions to groups that denied climate change, including the American Petroleum Institute, which waged a $6 million public-relations battle in the late '90s against the Kyoto Protocol, one of the world's first attempts to deal with the issue.

"Victory will be achieved when: average citizens 'understand' (recognize) uncertainties in climate science" and when "recognition of uncertainties becomes part of the 'conventional wisdom,' " one memo read. The strategy echoed one promoted by a tobacco executive in 1969: "Doubt is our product."

Lee Raymond, Exxon's CEO at the time, was a devout believer in fossil fuels. He once suggested carving the words "Crude Oil" into stone at company headquarters, and shut down Exxon's early efforts in renewable energy, which he saw as acquiescence to environmentalists in Washington. "Presidents come and go," Raymond told Steve Coll. "Exxon doesn't." In public, Raymond pressed the case that climate science was far from settled. "Many people — politicians and the public alike — believe that global warming is a rock-solid certainty. But it's not," he said in 1997. In 2000, as the world considered the Kyoto Protocol, Raymond put up a slide at Exxon's shareholder meeting showing a widely circulated list purporting to include thousands of scientists who had signed a petition questioning the climate consensus — a list that included several Star Wars characters and a Spice Girl. A year later, the Bush administration abandoned Kyoto.

The Rockefeller-funded articles sent climate activists into a frenzy. Bill McKibben, the writer and environmentalist, was arrested while protesting at an Exxon gas station with a sign that read, THIS PUMP TEMPORARILY CLOSED BECAUSE EXXONMOBIL LIED ABOUT (#EXXONKNEW) CLIMATE. A hashtag was born, and activists tried naming a melting Antarctic iceberg "Exxon Knew 1" and brought a 13-foot "Exxon Knew" ice sculpture to the company's shareholder meeting. For the Rockefellers who had taken a risk with the grant, the results were validating. "It proved the whole debate over climate change was a phony construct from the beginning," Wasserman said.

Exxon, meanwhile, struggled to come up with a defense. The company sent a letter to Columbia, accusing its journalists of cherry-picking documents, to which Coll responded with a six-page letter defending the reporters and pointing out that Exxon didn't seem to be challenging any facts. (The journalists suffered cyberattacks after their stories were published but weren't able to determine who was responsible.) During a Fox Business appearance, Tillerson punted on a question about the controversy — "I'm not sure how helpful it would be to talk about it" — just as he did later, during his confirmation hearing as nominee for secretary of State.

By spring, Exxon had decided to play the victim. "We all sat around the table and said, 'This feels very orchestrated,' " Suzanne McCarron, Exxon's vice-president of public and government affairs, told Bloomberg in 2016. Exxon cited a meeting between various environmental groups at offices shared by the Brothers Fund and the Family Fund; one participant had sent an email with possible discussion topics, including how "to establish in the public's mind that Exxon is a corrupt institution that has pushed humanity (and all creation) toward climate chaos and grave harm." When the Family Fund announced it was divesting from Exxon as a result of the company's "morally reprehensible" behavior, Exxon responded, "It's not surprising that they're divesting from the company since they're already funding a conspiracy against us."

There was, of course, precedent for condemning the Rockefellers as shadowy puppet masters. The Trilateral Commission, which David Rockefeller founded in 1973 to connect nongovernmental organizations in different countries, has long been a central node in any conspiracy theorist's map of the globalist power structure. David Rockefeller never completely rejected the accusation — "Conspiring with others around the world to build a more integrated global political and economic structure — one world, if you will. If that's the charge, I stand guilty, and I am proud of it," he wrote in his memoir — and his descendants did not deny having coordinated their efforts to bring Exxon to task. They simply disagreed with the idea that they

had done anything wrong. “We’re getting creamed by the right, and Exxon, for doing nothing but associating with other civic associations to try to address larger societal problems,” Wasserman said. “They are attacking behavior that is pretty central to what this country is about.”

Kaiser expected Exxon to go after the family but was surprised by the ferocity of the attack. “There’s not a giant appetite for being the next name after Soros in all these right-wing screeds,” Kaiser said. A writer for Natural Gas Now, one of numerous pro-oil sites that began denouncing the family, declared, “It’s time to RICO the Rockefellers.” (“This guy from Daily Caller writes about us every other day,” Wasserman said.) Lamar Smith, a Republican congressman from Texas, filed subpoenas against the Rockefeller funds and various environmental groups alleging they were attempting to “deprive” Exxon of its First Amendment rights. When Kaiser went on an NPR call-in show alongside an Exxon spokesman who dismissed the allegations as “so-called journalism that was hired and paid for by two Rockefeller organizations,” Kaiser took a call from Tony in Michigan, who identified himself as “somewhat of a skeptic” about climate change. “I feel that the taxes and all the things that happen because of the so-called climate-change crowd affect a small person like myself as opposed to Mr. Rockefeller,” Tony said, referring to Kaiser. “I would just like to ask Mr. Rockefeller how he gets around the country and the world — is it one of his family’s many private jets or private yachts?” Kaiser replied that he flies commercial — “economy, by the way” — and that every family, including his, could do more.

The Rockefellers themselves are not uniform in their views. There are conservative and liberal Rockefellers. Some still work in the fossil-fuel business. Ariana Rockefeller, a 35-year-old competitive equestrian rider who runs an eponymous fashion brand, called the campaign by her relatives “deeply misguided,” and told CBS, “I don’t think denouncing a family legacy is the best way to go about doing this.”

Kaiser would not admit to any significant familial tension — “Ari and I just disagree about this” — and the Rockefellers I spoke to were generally just as committed to a patrician sense of discretion as they were to the environment. Whenever I asked about intrafamily conflict, Kaiser would pause, then speak at a pace that would make any lawyer proud. He was nervous enough about the family reaction to his NYRB piece that he warned some relatives about its impending publication and asked the NYRB not to title it “The Rockefellers v. Exxon.” During the discussion at MoMA, several relatives objected to the Exxon campaign on ideological grounds, while others said they simply didn’t like seeing the family name in the news. But Kaiser declined to say which of his uncles and cousins thought what. “We had a very civil conversation,” he said. “And nobody persuaded anybody of anything.”

In 2015, Lee Wasserman met with New York attorney general Eric Schneiderman’s office to discuss whether Exxon’s alleged climate deception might have violated the Martin Act, a wide-ranging New York State securities law that prohibits “all deceitful practices contrary to the plain rules of common honesty.” Schneiderman was already pursuing similar claims against Peabody Energy, the world’s largest public coal company, and shortly after the Exxon articles were published, Schneiderman announced he would investigate whether Exxon had defrauded its shareholders, and the public, by denying the impact of climate change.

Exxon has since devoted considerable effort to delaying that process. As attorneys in Schneiderman’s office made their way through Exxon’s subpoenaed emails, they found an address with the name “Wayne Tracker,” which they discovered was an alias used by Tillerson. Exxon had not turned over all emails from the account, and an attorney for the company said that it would be “an interesting test of whether the attorney general’s office is reading the documents.” (Exxon says that many emails from the account cannot be found.) The company also sued Schneiderman and Maura Healey, the

Massachusetts attorney general, who had launched an inquiry, arguing that their investigations were politically motivated. Exxon filed the suit in Texas, where Judge Ed Kinkeade wondered aloud whether New York and Massachusetts would be so worried about climate change if they had as much oil as Texas. “I’m just saying, think about it,” Kinkeade said. (Kinkeade eventually acknowledged he didn’t have the jurisdiction to hear the suit and sent it to Judge Caproni.) In the meantime, 11 Republican state attorneys general filed a brief questioning the AGs’ right to conduct the investigation — and thus their own ability to conduct similar investigations — by arguing that they “falsely presume that the scientific debate regarding climate change is settled” and that, “regardless of what one believes about global warming and climate change, no one’s views should be silenced.”

The First Amendment claim was a curious one for Exxon, in part because its official position on climate change has shifted. The company’s spokespeople routinely respond to questions about its climate record by noting that, today, “ExxonMobil acknowledges the risk of climate change is clear and warrants action.” When Tillerson became CEO in 2006, other fossil-fuel companies had begun acknowledging the problem — British Petroleum changed its name to BP, for “beyond petroleum” — and Tillerson created a task force to reconsider the company’s position. In 2007, Exxon promised to stop funding climate-change deniers, and just before Barack Obama’s inauguration, Tillerson announced his support for a carbon tax. The shift was more of a strategic adjustment to new realities than a sincere change of heart: The Obama administration was pushing a cap-and-trade system that would have tackled the issue more aggressively than a carbon tax, and some observers believe Exxon’s carbon-tax campaign helped scuttle the administration’s plan. The change also appeared to have a more practical rationale: According to Coll, Exxon had begun to realize that its climate position “might do shareholders real damage, in ways comparable to the fate of tobacco companies,” and that “if ExxonMobil were ever judged in a courtroom to be cooking science, it could be devastating.”

Proving Exxon's legal culpability remains a difficult task, and veterans of the tobacco litigation, which produced more than $200 billion in settlements, point out that it took many years for incriminating documents to emerge and the legal process to play out. Exxon's lawsuit against the AGs remains in front of Judge Caproni, and there is no saying when a trial might begin, if ever. But the Rockefeller-funded journalistic investigations have helped open the door to a range of litigation. Several coastal cities in California, including San Francisco and Oakland, have sued Exxon and other fossil-fuel companies over the costs of adapting to rising seas, and the SEC launched an investigation into whether Exxon has improperly valued what have come to be known as "stranded assets" — oil reserves that companies count as potential profit on their books but that may go unused if the world makes a serious effort to regulate fossil fuels. In January 2017, Exxon wrote down more than $2 billion in such assets, and the company seems nervous enough about potential lawsuits that when it recently renewed its support for a carbon tax, it backed a plan that would also protect it from liability in climate litigation.

In May, Exxon's shareholders approved a resolution, for the first time, demanding the company prepare a report on the impact of climate change on its business. (An equal-pay resolution got just 8 percent of the vote.) Neva Goodwin, who led the Rockefellers' early shareholder efforts, said she had largely lost faith in the strategy but that things had changed when major financial institutions like BlackRock and Vanguard expressed their concern about stranded assets. Bob Litterman, a former head of risk management at Goldman Sachs, told me that he had helped the World Wildlife Fund make what he called a "stranded-asset total-return swap" as part of its endowment strategy, essentially betting against companies with potentially stranded assets, like Exxon, which is one of the swap's largest positions. So far, it has returned a 64 percent profit.

When I met David Kaiser for coffee in the fall, his family had come under attack again, this time for sponsoring two Harvard researchers' analysis of Exxon's claim that the journalists had "cherry-picked" documents. The academics rejected Exxon's assertion, but the company's supporters quickly dismissed the report as part of "the Rockefeller Family Fund cabal," and Exxon accused the Rockefellers of seeking "reparations." Kaiser admitted as much — adapting to climate change will cost trillions, and someone will have to pay for it — but insisted he and his relatives weren't interested in destroying the family business. "I would be delighted if ExxonMobil was able to stick around, but looking very different," he said, citing renewable energy as a way forward.

But Kaiser said he believed the most good would come from Exxon admitting that its history of climate denial had been disingenuous all along. A recent study found that Republicans identify with Exxon more than any other brand — Democrats see themselves most in Starbucks — but climate change had not always been partisan. "It's not a liberal or conservative thing we're talking about," George H.W. Bush said, urging action on global warming in 1988. In Kaiser's view, Exxon had turned it into a divisive issue and was now uniquely positioned to undo that damage. "I would like to see Exxon come clean and admit to the public what they've done," Kaiser said.

What the Rockefellers hoped, in essence, was to push Exxon toward the light, just as their own family came to understand the various ill effects of its success. In the early 1900s, Ida Tarbell wrote a series of articles in McClure's magazine lambasting John D. Rockefeller's business practices:

> Our national life is on every side distinctly poorer, uglier, meaner for the kind of influence [Rockefeller] exercises. From him we have received no impulse to public duty, only lessons in evading it for private greed; no stimulus to nobler ideals, only a lesson in the further deification of gold ...

Over time, the family took such criticism to heart. After the 1914 Ludlow Massacre, in which two dozen workers were killed during a strike at a Rockefeller-owned mine, John D. Jr. tried to improve relations with workers. His son John D. III later wrote his college

thesis on the topic and said his father's efforts hadn't gone far enough. And in 1932, five years before his death, John D. himself acknowledged the fortune God had given him would require amends. "As a nation," Rockefeller said, "looking proudly to our past where it has been noble, and recognizing with humility our mistakes of extravagance, selfishness, and indifference, let us with faith in God, in ourselves, and in humanity, go forward courageously resolved to play our part in worthily building a better world."

*This article appears in the January 8, 2018, issue of New York Magazine.

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Exhibit C

~~IN THE UNITED STATES DISTRICT COURT~~
~~FOR THE NORTHERN DISTRICT OF TEXAS~~
~~FORT WORTH DIVISION~~

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

EXXON MOBIL CORPORATION,

Plaintiff,

v.

ERIC TRADD SCHNEIDERMAN, Attorney General of New York, in his official capacity, and MAURA TRACY HEALEY, Attorney General of Massachusetts, in her official capacity,

Defendants.

No. 17-CV-2301 (VEC) (SN)

~~EXXON MOBIL CORPORATION,~~

~~Plaintiff,~~

~~v.~~

~~ERIC TRADD SCHNEIDERMAN, Attorney General of New York, in his official capacity, and MAURA TRACY HEALEY, Attorney General of Massachusetts, in her official capacity,~~

~~Defendants.~~

~~NO. 4:16-CV-469-K~~

EXXONMOBIL'S ~~FIRST~~SECOND AMENDED COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

Exxon Mobil Corporation ("ExxonMobil") brings this action seeking declaratory and injunctive relief against Eric Tradd Schneiderman, the Attorney General of New York~~, in addition to~~ **and** Maura Tracy Healey, the Attorney General of Massachusetts.

Attorneys General Schneiderman and Healey have joined together with each other, as well as others known and unknown ~~to conduct improper and politically motivated~~, **in an unlawful agreement to impose their viewpoint on climate change by abusing their law enforcement authority under state law. To coerce ExxonMobil into embracing their viewpoint on a matter of public concern, the Attorneys General launched pretextual** investigations of ExxonMobil in ~~a coordinated effort to silence and intimidate one side of the public policy debate on how to address climate change.~~ ~~ExxonMobil seeks an injunction barring the enforcement of a subpoena issued by~~**clear violation of the First Amendment.** Attorney General Schneiderman ~~and a~~ **issued multiple subpoenas to ExxonMobil, and Attorney General Healey issued a** civil investigative demand ("CID") ~~issued by Attorney General Healey~~ to ExxonMobil~~,~~ **that went so far as to name the groups promoting a viewpoint the Attorneys General oppose. ExxonMobil seeks an injunction barring these unconstitutional investigations** and a declaration that ~~the subpoena and CID~~**they** violate ExxonMobil's rights ~~under federal and state law. As demonstrated in this amended pleading, the same claims and arguments asserted against Attorney General Healey apply with equal force against Attorney General Schneiderman. For its First Amended Complaint, ExxonMobil alleges as follows based on present knowledge and information and belief:~~.

TABLE OF CONTENTS

INTRODUCTION

1. Frustrated by the federal government's apparent inaction on climate change, ~~Attorney~~**Attorneys** General Schneiderman ~~assembled~~**and Healey (the "Attorneys General") entered into a conspiracy with each other, as well as** a coalition of **special interests (including investors in alternative energy companies) and other** state attorneys general, ~~including Attorney General Healey, to use~~**to abuse** law enforcement powers as a means of ~~promoting a shared political agenda. According to an agreement executed by its members, this coalition embraced two goals.[1] First, it sought to "limit[] climate change" by pressing for a reduction in the use of fossil fuels.[2] Second, the coalition explicitly advocated for restrictions on speech and debate to accomplish that political agenda, listing as an objective "ensuring the dissemination of accurate information about climate change."[3] The coalition's agreement was concealed from the public until third parties recently obtained it from one coalition member under public records laws. Other coalition members continue to resist similar demands for transparency.~~**imposing their viewpoint on climate change. Acting independently and as members of the conspiracy, the Attorneys General have targeted ExxonMobil with pretextual investigations intended to cleanse the public square of alternative viewpoints on a matter of public policy.**

2. The ~~coalition~~**conspiracy** first ~~publicly~~ surfaced **publicly** when Attorney General Schneiderman hosted a press conference in New York City on March 29,

~~[1] *See* Paragraphs 52 to 53 below; *see also* Ex. R at App. 171–74.~~
~~[2] Ex. V at App. 196.~~
~~[3] *Id.*~~

2016,[41] with former Vice President and ~~private citizen~~**renewable energy investor** Al Gore as ~~the~~**a** featured speaker.[52] Attorney General Schneiderman ~~pledged that the coalition would "deal with the problem of climate change" by using law enforcement powers "creatively" and "aggressively" to force ExxonMobil[6] and other energy companies to support the coalition's preferred policy responses to climate change.[7] Considering climate change to be the "most pressing issue of our time," Attorney General Schneiderman said the coalition was "prepared to step into this [legislative] breach."[8]~~**declared there was "no dispute" about climate policy, only "confusion, and confusion sowed by those with an interest in profiting from the confusion and creating misperceptions in the eyes of the American public that really need to be cleared up."[3] Attorney General Healey pledged that those who purportedly "deceived" the public—by disagreeing with her about climate policy—"should be, must be, held accountable."[4] Claude Walker, the Attorney General of the Virgin Islands, concluded, "We have to look at renewable energy. That's the only solution."[5] All three attorneys general issued burdensome subpoenas or investigatory document demands to ExxonMobil in late 2015 or early 2016 as part**

[41] *See* Paragraphs ~~27~~**24** to ~~39~~**37** below.

[52] A transcript of the AGs United for Clean Power Press Conference, held on March 29, 2016, was prepared by counsel based on a video recording of the event, which is available at http://www.ag.ny.gov/press-release/ag-schneiderman-former-vice-president-al-gore-and-coalition-attorneys-general-across. A copy of this transcript is attached as Exhibit ~~D~~**B** and is incorporated by reference.

~~[6] ExxonMobil was formed as a result of a merger between Exxon and Mobil on November 30, 1999. For ease of discussion, we refer to the predecessor entities as ExxonMobil throughout the Complaint.~~

~~[7] Ex. B at App. 9—10.~~

~~[8] *Id.* at App. 9, 11.~~

[3] Ex. B at App. 10.

[4] Ex. B at App. 20.

[5] Ex. B at App. 24.

of investigations purportedly justified by the thinnest of pretexts.

~~3. Attorney General Healey similarly pledged "quick, aggressive action" by her office to "address climate change and to work for a better future."[9] She announced an investigation of ExxonMobil that she had already determined would reveal a "troubling disconnect between what Exxon knew" and what it "chose to share with investors and with the American public."[10] The statements of Attorney General Schneiderman, Attorney General Healey, Mr. Gore and others made clear that the press conference was a purely political event.~~

~~4~~3. ~~It was also~~That press conference and the related investigations were the result of years of planning and lobbying by ~~private~~special interests.[~~11~~6] For nearly a decade, climate change activists and certain plaintiffs' attorneys have sought to obtain the confidential records of energy companies as a means of pressuring those companies to change their policy positions. A 2012 workshop examined ways to obtain the internal documents of companies like ExxonMobil for the purpose of "maintaining pressure on the industry that could eventually lead to its support for legislative and regulatory responses to global warming."[~~12~~7] The attendees at that workshop concluded that "a single sympathetic state attorney general might have substantial success in bringing key internal documents to light."[~~13~~8]

~~5~~4. In the ~~months leading up to the press conference, these activists and attorneys~~years that followed, participants in the 2012 workshop lobbied state

~~9 *Id.* at App. 21.~~
~~10 *Id.* at App. 20.~~
[~~11~~6] *See* Paragraphs ~~40~~38 to ~~51~~61 below.
[~~12~~7] Ex. C at App. 56.
[~~13~~8] *Id.* at 40.

attorneys general to launch investigations of energy companies to further political objectives having nothing to do with law enforcement. In January 2016, those special interests met at the offices of the Rockefeller Family Fund in New York to discuss the "[g]oals of an Exxon campaign," which included to "delegitimize [it] as a political actor" and to "force officials to disassociate themselves from Exxon."[14]9 The attendees also brainstormed how to use "AGs" to "get[] discovery" and "creat[e] scandal."[10]

6. The leadership of this group of activists and attorneys attended a meeting with "sympathetic state attorney[s] general" prior to the March 29 press conference. While this Court and the public have not been told what was discussed, a copy of the agenda for the meeting includes presentations on the "imperative of taking action now on climate change" and on "climate change litigation."[15]

5. Those special interests were also lurking in the background at the Attorneys General's press conference. Before the state attorneys general took the stage, members of their respective staffs attended presentations on the "imperative of taking action now on climate change" and "climate change litigation" that were delivered by the architects of the 2012 workshop to abuse state law enforcement power to shape public discourse on climate change.[11]

7. Members of the coalitionThe Attorneys General recognized that the behind-the-scenes involvement of these individuals – especially a private attorney likely

[14]9 Ex. D at App. 67.
[10] Ex. S1 at App. 480.
[15] Ex. E at App. 70.
[11] Ex. E at App. 70.

~~to seek fees from any private litigation made possible by an attorney general-led investigation of ExxonMobil~~ could expose the special interests ~~behind~~**promoting** their ~~so-called~~ investigations and the bias underlying their deployment of law enforcement resources for partisan ends. When ~~that same private attorney~~**one of the 2012 workshop attendees** asked Attorney General Schneiderman's office what he should tell a reporter if asked about his involvement **in the press conference**, Lemuel Srolovic, Chief of the Environmental Protection Bureau, asked ~~the private attorney~~**that he** not ~~to~~ confirm his attendance ~~at the conference.[16]~~ **.[12]**

~~8. The investigations launched by Attorneys General Schneiderman and Healey amount to nothing more than an unlawful exercise of government power to further political objectives. The shifting justifications they have presented for their investigations are pretexts that have become more and more transparent over time.[17] Invoking state laws with limitations periods no longer than six years, the Attorneys General claim to be investigating whether ExxonMobil committed consumer or securities fraud by misrepresenting its knowledge of climate change.~~

7. These so-called investigations amount to nothing more than unlawful viewpoint discrimination. That is why the Attorneys General have lurched from one pretextual justification to another as they struggled to justify their actions.[13] When Attorney General Schneiderman launched his investigation, he claimed to be investigating ExxonMobil's scientific research in the 1970s and

~~[16] Ex. F at App. 80.~~
[12] Ex. F at App. 80.
~~[17] *See* Paragraphs 74 to 76 below.~~
[13] *See* Paragraphs 92 to 94 below.

1980s.[14] Later, during one of Attorney General Schneiderman's unprecedented press briefings on his "investigation" of ExxonMobil, he conceded that he had abandoned his original inquiry into ExxonMobil's historical scientific research and was instead pursuing a new theory of investor fraud based on proved reserves that he incorrectly believed were at risk of being "stranded."[15] As it enters its third year, the investigation now purports to focus on asset impairment.[16] These shifts further demonstrate that Attorney General Schneiderman is simply searching for a legal theory—any legal theory—to continue his efforts to pressure ExxonMobil and intimidate one side of a public policy debate.[17]

~~9~~8. ~~But for more than a decade~~The Attorneys General must devise creative legal arguments because during the relevant limitations periods (which do not exceed six years), ExxonMobil has widely and publicly confirmed[18] that it "recognize[s] that the risk of climate change and its potential impacts on society and ecosystems may prove to be significant."[19] ExxonMobil has also publicly supported the Paris accords and advocated for a tax on carbon emissions since 2009.[20] Moreover, in conducting its business, ExxonMobil addresses the potential for future climate ~~change~~ policy by estimating a proxy cost of carbon, which seeks to reflect potential policies governments may employ related to the exploration, development,

[14] Ex. K at 115; Ex. L at 123.
[15] Ex.MM at 351.
[16] Ex. S2 at App. 482.
[17] *See* Paragraphs 92 to 94 below.
[18] *See* ~~Paragraphs 63 to 64~~Paragraph 120 below.
[19] Ex. G at App. 93; *see also* Ex. H at App. 103 ("Because the risk to society and ecosystems from rising greenhouse gas emissions could prove to be significant, strategies that address the risk need to be developed and implemented.").
[20] Ex. T at App. 182.

production, transportation or use of carbon-based fuels.[21] This cost, which in some regions may approach $80 per ton by 2040, has been included in ExxonMobil's Outlook for Energy for several years.[22] Further, ExxonMobil requires all of its business lines to include, where appropriate, an estimate of greenhouse gas-related emissions costs in their economics when seeking funding for capital investments.[23] ~~Despite the applicable limitations periods and ExxonMobil's longstanding public recognition of the risks associated with climate change, the subpoena and the CID seek documents going back nearly four decades, seeking anything having to do with the issue.~~**The Attorneys General's proffered theories of fraud rest uneasily with these disclosures.**

~~10. Worse still, the New York Attorney General's subpoena and the Massachusetts Attorney General's CID target ExxonMobil's communications with those who the Attorneys General perceive to have different political viewpoints in the climate change debate. The subpoena seeks ExxonMobil's communications with oil and gas trade associations and industry groups that advocate on energy policy, and the CID demands ExxonMobil's communications with a list of organizations labeled by the coalition as so-called "climate deniers," *i.e.*, those who have expressed skepticism about the science of climate change or the coalition's preferred policies regarding climate change.[24] The CID also identifies statements made by ExxonMobil about the tradeoffs inherent in climate change policy and demands that ExxonMobil produce records supporting those disfavored statements.~~

[21] Ex. T at App. 190.
[22] *Id.*
[23] *Id.*
[24] ~~*See* Paragraphs 66 and 73 below.~~

9. At bottom, the Attorneys General's investigations have nothing to do with legitimate law enforcement goals and everything to do with an unconstitutional effort to curtail free speech rights based on viewpoint bias. Regulating debate over public policy, even when styled as clearing up "confusion" and "deception," is not a legitimate law enforcement function. That is why fifteen other state attorneys general openly criticized Attorneys General Schneiderman, Healey, and Walker for misusing their law enforcement power to pursue a politicized investigation designed to suppress the free exercise of First Amendment rights.[24]

10. Defending its rights against this improper exercise of state power, ExxonMobil filed a civil rights action against Attorney General Walker in Texas state court and the instant action against the Attorneys General in federal court. Attorney General Walker withdrew his subpoena shortly after ExxonMobil's challenge was removed to federal court. The strength of ExxonMobil's prima facie showing against the Attorneys General in the instant action was so powerful that Judge Ed Kinkeade expressed concern that their investigations were means "to further their personal agendas by using the vast power of the government to silence the voices of all those who disagree with them."[25]

[24] ECF No. 63; ECF No. 192-3; Ex. Y at App. 227; Ex. QQ at App. 435; Ex. RR at App. 438; Ex. SS at App. 441.

[25] Order Transferring Case to the Southern District of New York, *Exxon Mobil Corp. v. Healey*, No. 4:16-CV-00469 (N.D. Tex. March 29, 2017) (ECF No. 180).

~~11. Recent events have fully unmasked the pretextual nature of these investigations and the improper bias and unconstitutional objectives animating them.[25] When Attorney General Schneiderman launched his investigation, he claimed to be investigating ExxonMobil's scientific research in the 1970s and 1980s. Subject to the assertion of privilege, including First Amendment privileges, ExxonMobil initially provided documents to Attorney General Schneiderman with the expectation that his office would conduct a neutral, even-handed investigation. As events unfolded over the ensuing months—including the politicized press conference in March and the secret agreement's coming to light over the summer—that expectation has evaporated.~~

~~12. Within the last month, and well after ExxonMobil commenced this action, Attorney General Schneiderman continued his practice of providing unprecedented briefings to the press on the status of his "investigation" of ExxonMobil and announced his expectation that a "massive securities fraud" will be uncovered. During one of those briefings, Attorney General Schneiderman conceded that he has abandoned his original inquiry into ExxonMobil's historical scientific research and is now pursuing a new theory of investor fraud. That shift further demonstrates that Attorney General Schneiderman is simply searching for a legal theory—any legal theory—to continue his efforts to pressure ExxonMobil and intimidate one side of a public policy debate.[26]~~

~~13~~11. ~~It is now indisputable that the subpoena and the CID were issued in bad faith to deter ExxonMobil from participating in ongoing public deliberations about~~

~~[25] *See* Paragraphs 74 to 76 below.~~
~~[26] *See* Paragraphs 74 to 81 below.~~

~~climate change and to fish through decades of ExxonMobil's documents in the hope of finding some ammunition to enhance the coalition's, and its climate activist confederates', position in the policy debate over climate change.~~ Through their ~~actions,~~**official misconduct, the** Attorneys General ~~Schneiderman and Healey~~ have deprived**,** and will continue to deprive**,** ExxonMobil of its rights under the United States Constitution, the Texas Constitution, and the common law.

~~14.~~ ExxonMobil therefore seeks a declaration that the ~~subpoena and the CID~~**Attorneys General's investigations** violate its rights under Articles One and Six of the United States Constitution; the First, Fourth, and Fourteenth Amendments to the United States Constitution; Sections Eight, Nine, and Nineteen of Article One of the Texas Constitution; and **that the issuance of the subpoena and CID** constitutes an abuse of process under the common law. ExxonMobil also seeks an injunction barring further ~~enforcement~~**continuation** of the ~~subpoena and the CID~~**investigations**. Absent an injunction, ExxonMobil will suffer imminent and irreparable harm for which there is no adequate remedy at law.

PARTIES

~~15~~**12**. ExxonMobil is a public, shareholder-owned energy company incorporated in New Jersey with principal offices in the State of Texas. ExxonMobil is headquartered and maintains all of its central operations in Texas.

~~16~~**13**. Defendant Eric Tradd Schneiderman is the Attorney General of New York. He is sued in his official capacity.

~~17~~**14**. Defendant Maura Tracy Healey is the Attorney General of Massachusetts. She is sued in her official capacity.

JURISDICTION AND VENUE

~~18~~15. This Court has subject matter jurisdiction over this action pursuant to Sections 1331 and 1367 of Title 28 of the United States Code. Plaintiff alleges violations of its constitutional rights in violation of Sections 1983 and 1985 of Title 42 of the United States Code. Because those claims arise under the laws of the United States, this Court has original jurisdiction over them. 28 U.S.C. § 1331. Plaintiff also alleges related state law claims that derive from the same nucleus of operative facts. Each of Plaintiff's state law claims—like its federal claims—is premised on statements by Attorneys General Schneiderman and Healey at the press conference and during the course of their investigations, their issuance of ~~the subpoena~~subpoenas and ~~the~~a CID, the demands made therein, and other documentary evidence of their intention to ~~muzzle ExxonMobil's speech in Texas~~pressure ExxonMobil to change its perceived position on climate policy. This Court therefore has supplemental jurisdiction over those claims. 28 U.S.C. § 1367(a).

~~19~~16. Venue is proper within this District pursuant to Section 1391(b) of Title 28 of the United States Code because ~~all or~~ a substantial part of the events giving rise to the claims occurred in the ~~Northern~~Southern District of ~~Texas. The subpoena was emailed to ExxonMobil in Texas, and both the subpoena and CID target and seek to suppress speech emanating from Texas. They also require ExxonMobil to collect and review a substantial number of records stored or maintained in the Northern~~New York.[26] The March 29, 2016 press conference in which the Attorneys General

[26] This conclusion was reached by Northern District of Texas Judge Ed Kinkeade when he transferred this action to the Southern District of New York. (ECF. No. 180.)

described their intent to use law enforcement powers to alter public perception about climate policy was held in this District ~~of Texas~~.

FACTS

A. Attorney General Schneiderman Opens His Investigation of ExxonMobil with a Press Leak Followed by a Television Interview.

~~20~~17. In November 2015, ExxonMobil received Attorney General Schneiderman's subpoena at its corporate headquarters in Irving, Texas.[27] Within hours, the press ~~was reporting on~~reported the subpoena's issuance and its contents. ~~An~~According to an article in *The New York Times* ~~reported that~~, the subpoena "demand[ed] extensive financial records, emails and other documents," and ~~that~~ the "focus" of the investigation was on "the company's own long running scientific research" on climate change.[28] The article identified as sources "people with knowledge of the investigation," all of whom "spoke on the condition of anonymity saying they were not authorized to speak publicly about investigations."[29] To state the obvious, ExxonMobil did not alert *The New York Times* or any other media to the subpoena's existence or its contents.

~~21~~18. This press leak was unsettling. It is customary for law enforcement officials to maintain confidentiality of their investigations, both to protect the integrity of the investigative process and to avoid unfair prejudice to those under investigation. Indeed, Attorney General Schneiderman himself has recognized it is inappropriate

[27] Ex. I at App. 108. Shortly after Attorney General Schneiderman issued his first subpoena, his office confirmed, in writing, that "by producing documents in accordance with our discussions prior to the return date as extended, Exxon is not waiving any right to seek to quash or otherwise object to the subpoena." Ex. S55 at App. 1138.

[28] Ex. A at App. 2.

[29] *Id.* at App. 2–3.

to "comment on ongoing investigations."[30] But Attorney General Schneiderman's investigation of ExxonMobil has been conducted with a marked disregard for traditional concerns about confidentiality or unfair prejudice. Before ExxonMobil had even accepted service of the subpoena, it had received multiple media inquiries about the subpoena and could read about the investigation in online news accounts.[30][31]

~~22~~19. Within a week of issuing the subpoena, Attorney General Schneiderman appeared on a *PBS NewsHour* segment, entitled "Has Exxon Mobil misle[d] the public about its climate change research?"[31][32] During that appearance, Attorney General Schneiderman described the focus of his investigation on ExxonMobil's purported decision to "shift[] [its] point of view" and "change[] tactics" on climate change after "being at the leadership of doing good scientific work" on the issue "[i]n the 1980s."[32][33] Attorney General Schneiderman said his probe extended to ExxonMobil's "funding [of] organizations."[33][34] While he did not refer to them expressly as his political adversaries, he derided them as "climate change deniers" and "climate denial organizations."[34][35] Those organizations included the "American Enterprise Institute, . . . the American Legislative Exchange Council, . . . [and the] American Petroleum Institute."[35][36]

~~23~~20. Renewable energy was another focus of the interview. Attorney General Schneiderman said he was "concerned about" ExxonMobil's purported "overestimating

[30] Ex. S62 at App. 1316.
[30][31] *See, e.g.*, Ex. A at App. 2–7; Ex. J at App. 110–112.
[31][32] Ex. K at App. 114.
[32][33] *Id.* at App. 115.
[33][34] *Id.* at App. 116.
[34][35] *Id.* at App. 116, 118.
[35][36] *Id.* at App. 116.

the costs of switching to renewable energy," but he did not explain how any supposed error in that estimate could conceivably constitute a fraud or mislead any consumer.[3637]

2421. Attorney General Schneiderman did not discuss ExxonMobil's oil and gas reserves or its assets at all during this interview.

2522. Later that month at an event sponsored by *Politico* in New York, Attorney General Schneiderman said that ExxonMobil appeared to be "doing very good work in the 1980s on climate research" but ~~that~~ its "corporate strategy seemed to shift" later.[3738] Attorney General Schneiderman claimed that the company had funded organizations that he labeled "aggressive climate deniers," again specifically naming his perceived political opponents at the American Enterprise Institute, the American Legislative Exchange Council, and the American Petroleum Institute.[3839] Attorney General Schneiderman admitted that his "investigation" of ExxonMobil was merely "one aspect" of his office's efforts to "take action on climate change," commenting that society's failure to address climate change would be "viewed poorly by history."[3940]

2623. After this initial flurry of statements to the press, relative quiet followed, and ExxonMobil attempted in good faith to produce records demanded by the subpoena. It provided Attorney General Schneiderman with documents related to its historical research on global warming and climate change.

B. The ~~"Green 20" Coalition Plans~~Attorneys General Pledge to Use Law Enforcement Tools ~~for Political Goals~~to Impose Their Viewpoint on Climate Policy.

[3637] *Id.*. at App. 117.
[3738] Ex. L at App. 123.
[3839] *Id.*
[3940] *Id.* at App. 124.

~~27~~24. The playing field changed on March 29, 2016, when Attorney General Schneiderman hosted a press conference in New York City. Calling themselves the "AGs United For Clean Power" and the "Green 20," Attorneys General Schneiderman and Healey were joined by other state attorneys general and Al Gore to announce their plan to take "progressive action to address climate change" by investigating ExxonMobil.[~~40~~41] Attorneys general or staff members from over a dozen other states were in attendance, as was ~~Claude Walker, the~~ Attorney General **Walker** of the ~~United States~~ Virgin Islands.

~~28~~25. Expressing dissatisfaction with the supposed "gridlock in Washington" regarding climate change legislation, Attorney General Schneiderman said that the coalition had to work "creatively" and "aggressively" to respond to "th[e] most pressing issue of our time," namely, the need to "preserve our planet and reduce the carbon emissions that threaten all of the people we represent."[~~41~~42]

~~29~~26. Attorney General Healey agreed, opining that "there's nothing we need to worry about more than climate change."[~~42~~43] She considered herself to have "a moral obligation to act" to remedy what she described as a threat to "the very existence of our planet," and she vowed to take "quick, aggressive action" to "address climate change and to work for a better future."[~~43~~44]

~~30~~27. Echoing those themes, Attorney General Walker stated that "the American people . . . have to do something transformational" because "[w]e cannot

[~~40~~41] Ex. M at App 127.
[~~41~~42] Ex. B at App. 9–11.
[~~42~~43] *Id.* at App. 20.
[~~43~~44] *Id.* at App. 20–21.

continue to rely on fossil fuel."[44][45] In private communications with other members of the Green 20 coalition, Attorney General Walker expressed his hope that the coalition's efforts would "identify[] other potential litigation targets" and "increase our leverage" against ExxonMobil to replicate or improve on an $800 million settlement he had previously obtained against another energy company.[45][46]

31**28**. For the Green 20, the public policy debate on climate change was over and dissent was intolerable. Attorney General Schneiderman declared that he had "heard the scientists" and "kn[e]w what's happening to the planet."[46][47] To him, there was "no dispute but there is confusion, and confusion sowed by those with an interest in profiting from the confusion and creating misperceptions in the eyes of the American public that really need to be cleared up."[47] ~~Clearing up that "confusion" what the First Amendment safeguards as protected political speech was an express objective of the Green 20.~~[48] **Schneiderman has long derided those who do not share his viewpoint on climate policy. In a September 2014 speech, Schneiderman noted the importance of "challenging those who refuse to acknowledge that climate change is real" and that "it is up to us to do the transformational work needed to enable everyone to clearly see that climate change is real, that all of us are feeling its effects right now, and that we can and must address it together."[49] And in the same speech, Attorney General Schneiderman revealed his belief that his**

[44][45] ~~Ex~~*Id*. ~~B~~ at App. 24.
[45][46] Ex. N at App. 131, **133**–134.
[46][47] Ex. B at App. 10.
[47] ~~*Id.*~~
[48] ***Id.***
[49] **Ex. S5 at App. 530.**

prosecutorial powers should be used in a "creative" fashion for the political end of "chang[ing] public awareness" on the issue of climate change, noting "we all need to be activists."[50]

~~32~~29. According to Attorney General Healey, "[p]art of the problem has been one of public perception," causing "many to doubt whether climate change is real and to misunderstand and misapprehend the catastrophic nature of its impacts."~~48~~51 She promised that those who "deceived" the public—by disagreeing with her about climate change—"should be, must be, held accountable."~~49~~52 Mr. Gore agreed, denouncing those he accused of "deceiving the American people . . . about the reality of the climate crisis and the dangers it poses to all of us."~~50~~53

30. What the Attorneys General derided as "confusion," "misunderstand[ing]," and "misapprehen[sion]" is the very speech that the First Amendment safeguards as protected political speech. It is not the proper role of government to limit the free flow of such ideas, but the Green 20 was unmistakable in its belief that free speech constituted "part of the problem" their actions were intended to address.

~~33~~31. The ~~attorneys general~~**Attorneys General also** embraced the renewable energy industry, in which Mr. Gore is a prominent investor and promoter, as the only legitimate response to climate change. Attorney General Schneiderman said, "We have

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[50] ***Id.* at 525.**
[48]~~51~~ ~~*Id.*~~**Ex. B** at App. 20.
[49]~~52~~ *Id.*
[50]~~53~~ *Id.* at App. 14.

to change conduct" to "mov[e] more rapidly towards renewables."[51][54] Attorney General Healey promised to "speed our transition to a clean energy future"[52] [55] According to Attorney General Walker, "[w]e have to look at renewable energy. That's the only solution."[53][56] Mr. Gore urged the coalition of state attorneys general to investigate his business competitors for "slow[ing] down this renewable revolution" by "trying to convince people that renewable energy is not a viable option."[54][57]

34[32]. The assembled attorneys general had nothing but praise for Mr. Gore, whose financial interests aligned with their political agenda. Attorney General Schneiderman enthused that "there is no one who has done more for this cause" than Mr. Gore, who recently had been "traveling internationally, raising the alarm," and "training climate change activists."[55][58] Equally embracing the public support of Mr. Gore, Attorney General Healey praised him for explaining so "eloquently just how important this is, this commitment that we make," and she thanked him for his "inspiration" and "affirmation."[56][59] Virgin Islands Attorney General Walker hailed the former Vice President as one of his "heroes."[57][60]

35[33]. In an effort to legitimize what the attorneys general were doing, Mr. Gore cited perceived inaction by the federal government as the justification for action by the Green 20. He observed that "our democracy's been hacked . . . but if the

[51][54] *Id.* at App. 27–28.
[52] ~~*Id.* at App. 21.~~
[55] ***Id.* at App. 21.**
[53][56] *Id.* at App. 24.
[54][57] *Id.* at App. 17.
[55][58] *Id.* at App. 13.
[56][59] *Id.* at App. 20.
[57][60] *Id.* at App. 23.

Congress really would allow the executive branch of the federal government to work, then maybe this would be taken care of at the federal level."[58][61] Reading from the same script, Attorney General Schneiderman pledged that the Green 20 would "step into th[e] [legislative] breach" created by this alleged federal inaction.[59][62] He then showed that his subpoena was a tool for achieving his political goals:

> We know that in Washington there are good people who want to do the right thing on climate change but everyone from President Obama on down is under a relentless assault from well-funded, highly aggressive and morally vacant forces that are trying to block every step by the federal government to take meaningful action. So today, we're sending a message that, at least some of us—actually a lot of us—in state government are prepared to step into this battle with an unprecedented level of commitment and coordination.[60][63]

[36]34. Attorney General Schneiderman linked the coalition's political efforts to his investigation of ExxonMobil, reminding the audience that he "had served a subpoena on ExxonMobil" to investigate "theories relating to consumer and securities fraud."[61][64] He also suggested that ExxonMobil faced a presumption of guilt in his office, arguing that ExxonMobil had been "using the best climate models" to determine "how fast the sea level is rising" and to "drill[] in places in the Arctic where they couldn't drill 20 years ago" while telling "the public for years that there were no 'competent models,' . . . to project climate patterns, including those in the Arctic."[62][65] Attorney General Schneiderman went on to suggest there was something illegal in ExxonMobil's alleged support for "organizations that put out propaganda denying that we can predict or

[58][61] *Id.* at App. 17.
[59][62] *Id.* at App. 11.
[60][63] *Id.* at App. 12.
[61][64] *Id.* at App. 11.
[62][65] *Id.*

measure the effects of fossil fuel on our climate, or even denying that climate change was happening."[63][66]

[37]35. Attorney General Healey was equally explicit in her prejudgment of ExxonMobil. She stated that there was a "troubling disconnect between what Exxon knew, what industry folks knew, and what the company and industry chose to share with investors and with the American public."[64][67] Those conclusions were announced weeks before she even issued the CID to ExxonMobil.[68]

[38]36. The political motivations articulated by Attorneys General Schneiderman, Healey, and Walker, Mr. Gore, and the other press conference attendees struck a discordant note with those who rightfully expect government attorneys to conduct themselves in a neutral and unbiased manner. The overtly political tone of the conference even prompted one reporter to ask whether the press conference and the investigations were "publicity stunt[s]."[65][69]

[39]37. Even some members of the coalition were apprehensive about the expressly political focus of its ringleader. Attorney General Schneiderman's office circulated a draft set of "Principles" for the "Climate Coalition of Attorneys General" that included a "[p]ledge" to "work together" to enforce laws "that require progressive action on climate change."[66][70] Recognizing the overtly political nature of that pledge, an employee of the Vermont Attorney General's Office wrote: "We are thinking that use

[63][66] *Id.*
[64][67] *Id.* at App. 20.
[68] Ex. II at App. 538.
[65][69] *Id* Ex. B at App. 25.
[66][70] Ex. M at App. 127.

of the term 'progressive' in the pledge might alienate some. How about 'affirmative,' 'aggressive,' 'forceful' or something similar?"[67][71]

C. In Closed-Door Meetings, ~~the Green 20 Meet with~~ Private Interests Urge Abusing State Power.

~~40~~38. The impropriety of the statements made by Attorneys General Schneiderman and Healey and the other members of the Green 20 at the press conference is likely surpassed ~~only~~ by what ~~is currently known about what~~ they said behind closed doors.

~~41~~39. During the morning of the press conference, the attorneys general (or their respective staffs) attended two presentations. Those presentations were not announced publicly, and they were not open to the press or general public. The identity of the presenters and the titles of the presentations, however, were later released by the State of Vermont in response to a request by a third party under that state's Freedom of Information Act.

~~42~~40. The first presenter was Peter Frumhoff, the Director of Science and Policy for the Union of Concerned Scientists.[68][72] His subject was the "imperative of taking action now on climate change."[69][73]

~~43~~41. According to the Union of Concerned Scientists, those who do not share its views about climate change and responsive policy make it "difficult to achieve meaningful solutions to global warming."[70][74] It accuses "[m]edia pundits, partisan think tanks, and special interest groups" of being "contrarians," who "downplay and distort

[67][71] *Id.* at App. 126.
[68][72] Ex. O at App. 138.
[69][73] Ex. E at App. 70.
[70][74] Ex. P at App. 146.

the evidence of climate change, demand policies that allow industries to continue polluting, and attempt to undercut existing pollution standards."[71][75]

44**42**. Frumhoff has been targeting ExxonMobil since at least 2007. In that year, Frumhoff contributed to a publication issued by the Union of Concerned Scientists, titled "Smoke, Mirrors, and Hot Air: How ExxonMobil Uses Big Tobacco's Tactics to Manufacture Uncertainty on Climate Science."[72][76] This essay brainstormed strategies for "[p]utting the [b]rakes" on ExxonMobil's alleged "[d]isinformation [c]ampaign" on climate change.[73][77]

45**43**. Matthew Pawa ~~of Pawa Law Group, P.C.,~~ hosted the second presentation on the topic of "climate change litigation."[74] ~~The~~[78] Pawa ~~Law Group, which boasts of its "role in launching global warming litigation,"[75]~~ previously sued ExxonMobil and ~~sought to hold it liable for causing global warming. That suit was dismissed because, as the court properly held, regulating~~**23 other energy companies for allegedly contributing to global warming and flooding.**[79] **Mr. Pawa had hoped the lawsuit would serve as "a potentially powerful means to change corporate behavior."**[80] **The court rebuffed Mr. Pawa's gambit, however, finding that the**

[71][75] *Id.* at App. 146–47.
[72][76] Ex. Q at App. 160, 163.
[73][77] *Id.* at App. 166.
[74] ~~Ex. E at App. 70.~~
[78] **Ex. E at App. 70.**
[75] ~~Ex. S at App. 176.~~
[79] ***Native Vill. of Kivalina* v. *ExxonMobil Corp.*, 663 F. Supp. 2d 863, 869 (N.D. Cal. 2009), *aff'd*, 696 F.3d 849 (9th Cir. 2012).**
[80] **Ex. C at App. 41.**

regulation of greenhouse gas emissions is "a political rather than a legal issue that needs to be resolved by Congress and the executive branch rather than the courts."[76][81]

4644. Frumhoff and Pawa have sought for years to initiate and promote litigation against fossil fuelenergy companies in the service of their political agenda and for private profit. In June 2012, for example, Frumhoff organized and Pawa presented at a workshop entitled "a collection of special, private interests gathered in La Jolla, California, to participate in a "Workshop on Climate Accountability, Public Opinion, and Legal Strategies."[77][82] Frumhoff and Naomi Oreskes, then a professor at the University of California, San Diego, "conceived" of this workshop and invited Pawa as a featured speaker.[83] The workshop's goal was to consider "the viability of diverse strategies, including the legal merits of targeting carbon producers (as opposed to carbon emitters) for U.S.-focused climate mitigation."[78][84] During the conference, attendees accused energy companies, including ExxonMobil, of "attempting to manufacture uncertainty about global warming,"[85] and they discussed a wide variety of legal strategies to combat the industry's alleged "efforts to defeat action on climate change."[86]

4745. The 2012 workshop's attendees discussed at considerable length "Strategies to Win Access to Internal Documents" of fossil fuelenergy companies like

[76] Ex. C at App. 41; *see also Native Vill. of Kivalina* v. *ExxonMobil Corp.*, 663 F. Supp. 2d 863, 871–77 (N.D. Cal. 2009), *aff'd*, 696 F.3d 849 (9th Cir. 2012)[81] *Id.*

[77][82] Ex*Id.* C at App. 30–31, 61, 63.

[83] *Id.* at App. 41.

[78][84] *Id.* at App. 32–33.

[85] *Id.* at App. 34–35.

[86] *Id.* at App. 35.

ExxonMobil.[79] ~~Even then~~[87] **Many participants noted that "pressure from the courts offers the best current hope for gaining the energy industry's cooperation in converting to renewable energy."**[88] **In addition**, "lawyers at the workshop" suggested that "a single sympathetic state attorney general might have substantial success in bringing key internal documents to light."[80][89] **They also saw civil litigation as a vehicle for accomplishing their goals, with one commentator observing, "[e]ven if your ultimate goal might be to shut down a company, you still might be wise to start out by asking for compensation for injured parties."**[90] The conference's attendees were "nearly unanimous" regarding "the importance of legal actions, both in wresting potentially useful internal documents from the fossil fuel industry and, more broadly, *in maintaining pressure on the industry that could eventually lead to its support for legislative and regulatory responses to global warming*."[81][91]

46. Oreskes, Frumhoff, and Pawa—key architects of the La Jolla strategy—encouraged the Attorneys General to implement their plan of imposing burdens on the energy industry to coerce it to adopt their climate agenda. In June 2015, Oreskes met with New York Attorney General Eric Schneiderman to discuss the purported "history of misinformation" of the energy industry, a theme

[79] ~~*Id.* at App. 40–41.~~
[87] ***Id.* at App. 40–41, 56.**
[88] ***Id.* at App. 56–57.**
[80][89] *Id.* at App. 40.
[90] ***Id.* at App. 42.**
[81][91] *Id.* at App. 56 (emphasis added).

she has been promoting since at least 2010.[92] Oreskes and members from Frumhoff's Union of Concerned Scientists attended a similar meeting in Boston with the staff of attorneys general offices from a number of states.[93] At that meeting, Oreskes noted that there were "factual presentations about climate science, history of climate disinformation and also a presentation by Sharon Eubanks who had led the US Department of [J]ustice prosecution of tobacco industry under the RICO statues."[94]

47. In July 2015—just a few months before the New York Attorney General commenced his investigation—Frumhoff boasted to fellow activists that he was exploring "state-based approaches to holding fossil fuel companies legally accountable" and anticipated "a strong basis for encouraging state (e.g., AG) action forward."[95] Even after the press conference, Frumhoff continued to provide support and counsel to the Attorneys General in this unlawful enterprise.[96]

48. During this time, Pawa implemented another strategy in the La Jolla playbook—encouraging municipalities to commence public nuisance litigation against energy companies like ExxonMobil. Specifically, in March 2015, Pawa sent a legal memorandum encouraging California to pursue public nuisance litigation against ExxonMobil and other energy companies to NextGen America,

[92] Ex. S7 at App. 546; Oreskes is the co-author of *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (2010).
[93] *Id.* at App. 544.
[94] *Id.* at App. 546.
[95] Ex. S8 at App. 548.
[96] Ex. S9 at App. 551.

an organization founded by California billionaire Tom Steyer to promote his political agenda.[97] In that memorandum, Pawa claimed "to know that certain fossil fuel companies (most notoriously ExxonMobil), have engaged in a campaign and conspiracy of deception and denial on global warming."[98] Acknowledging the ulterior purpose motivating his proposed litigation against energy companies, Pawa wrote, "simply proceeding to the discovery phase of a global warming case would be significant . . . . Just as obtaining such documents gave the Tobacco litigation an unstoppable momentum, here too obtaining industry documents would be a remarkable achievement that would advance the case and the cause."[99]

49. Consistent with Pawa's memorandum, a number of California municipalities filed lawsuits in July 2017, asserting public nuisance claims against ExxonMobil and other energy companies.[100] Pawa represents San Francisco and Oakland, and, as public records released in December 2017 show, his firm stands to gain a multi-billion dollar contingency fee as his agreement with the City of San Francisco—released through public records requests—entitles his firm to 23.5% of any net monetary recovery.[101]

50. It is no surprise that Pawa sent his legal strategy for California to Steyer, who has repeatedly encouraged the federal government and state attorneys

[97] Ex. S10 at App. 553; Ex. S11 at App. 555.
[98] Ex. S12 at App. 567.
[99] *Id.* at App. 573.
[100] Ex. S13 at App. 577.
[101] Ex. S14 at App. 587.

general to investigate ExxonMobil.[102] Steyer also has long bankrolled campaigns promoting the policies favored by the Attorneys General.[103]

51. Evidence suggests that Attorney General Schneiderman communicated with Steyer about campaign support in connection with his investigation of ExxonMobil.[104] Attorney General Schneiderman's office emailed Steyer's scheduler, Erin Suhr, to follow up "on conversation re: company specific climate change information" a mere five days after it subpoenaed ExxonMobil's climate change research.[105] In March 2016, Attorney General Schneiderman also allegedly tried to arrange a meeting with Steyer. The *New York Post* reports that this communication reads, "Eric Schneiderman would like to have a call with Tom regarding support for his race for governor . . . regarding Exxon case."[106]

~~48~~52. In January 2016, Pawa and a group of climate activists, including La Jolla participant Sharon Eubanks, met at the Rockefeller Family Fund offices to discuss the "[g]oals of an Exxon campaign."~~82~~[107] The goals included:

- To establish in [the] public's mind that Exxon is a corrupt institution that has pushed humanity (and all creation) toward climate chaos and grave harm.
- To delegitimize [ExxonMobil] as a political actor.
- To force officials to disassociate themselves from Exxon, their money, and their historic opposition to climate progress, for

[102] Ex. S16 at App. 611; Ex. S17 at App. 615 (job listing by Fahr LLC, an organization owned by Tom Steyer).
[103] Ex. S19 at App. 649; *see also* Ex. S20 at App. 653; Ex. S21 at App. 660.
[104] Ex. S22 at App. 664.
[105] *Id.* at App. 666.
[106] Ex. S24 at App. 674.
~~82~~[107] Ex. D at App. 67.

example by refusing campaign donations, refusing to take meetings, calling for a price on carbon, etc.

- To drive divestment from Exxon.
- To drive Exxon & climate into [the] center of [the] 2016 election cycle.[83][108]

This agenda to restrict and impair ExxonMobil's freedoms of speech and association cannot be legitimate objectives of any bona fide government-directed investigation or litigation.

53. At the meeting, the activists also discussed "the main avenues for legal actions & related campaigns," including "AGs," "DOJ," and "Torts."[109] Among these options, they considered which had the "best prospects" for (i) "successful action," (ii) "getting discovery," and (iii) "creating scandal."[110]

54. Shortly after this meeting, Pawa attempted to implement the "AGs" plan. At least twice, he emailed the Vermont Attorney General's Office news articles criticizing ExxonMobil for purportedly deceiving the public about the effects of climate change, including an opinion piece written by a member of the Rockefeller family in which she explains why she donated her inherited ExxonMobil stock to support efforts to combat global warming.[111]

55. After the January 2016 meeting, the Rockefeller Family Fund also continued its efforts to "delegitimize" ExxonMobil. In March 2016, the Fund announced that it would divest from all fossil fuel holdings, including

[83][108] *Id.*; *see also* Ex. U at App. 192–94.
[109] **Ex. S1 at App. 479.**
[110] ***Id.* at App. 480.**
[111] **Ex. S25 at App. 677; Ex. S26 at App. 679; Ex. S27 at App 681.**

ExxonMobil.[112] The Fund singled ExxonMobil out for purportedly "morally reprehensible conduct" and claimed that "the company worked since the 1980s to confuse the public about climate change's march."[113]

56. Public records also reveal that the Rockefeller Family Fund repeatedly communicated with the New York Attorney General's Office about climate change and its investigation of ExxonMobil before the January 2016 meeting. In February 2015, the New York Attorney General's Office exchanged a dozen emails with the Fund concerning the "activities of specific companies regarding climate change."[114] The Fund's persistent lobbying paid off, which prompted the daughter of a Rockefeller Family Fund's director to announce on Twitter the day after Attorney General Schneiderman issued his subpoena to ExxonMobil that she was "[s]o proud" of her father "for helping make this happen #ExxonKnew."[115] (As her Twitter account shows,[116] the director's daughter worked for Steyer's NextGen, the organization that received Pawa's legal memorandum encouraging government litigation against ExxonMobil and other energy companies in March 2015).[117]

57. Over a year later, in December 2016, the director of the Rockefeller Family Fund finally admitted, after initially denying the connection, that the Fund had financed the so-called investigative journalism that would later provide

[112] Ex. S28 at App. 684.
[113] *Id.*
[114] Ex. S29 at App. 688.
[115] Ex. S30 at App. 695.
[116] *Id.*
[117] *See* Paragraph 48.

a pretext for the Attorneys General's improper investigations of ExxonMobil.[118] This supposed investigative journalism by *Inside Climate News* and the *Los Angeles Times*—which the Attorneys General have used as pretextual support for their investigations[119]—selectively interpreted documents ExxonMobil had made publicly available in the archives of the University of Texas-Austin.[120] While the Attorneys General have suggested these documents show ExxonMobil had advance, secret knowledge of climate change decades ago, the documents in fact demonstrate that ExxonMobil's climate research contained myriad uncertainties and was aligned with the research of scientists at leading institutions at the time, including scientists at the Massachusetts Institute of Technology, the National Academy of Science and the Environmental Protection Agency.[121]

58. The Rockefeller Family Fund also acknowledged that, before the Attorneys General commenced their investigations, it had "informed [unnamed] state attorneys general of [its] concern" about ExxonMobil's statements on climate change and was "encouraged by [Attorney General] Schneiderman's interest."[122] On January 8, 2018, *New York Magazine* reported that the Rockefeller Family Fund director met with Attorney General Schneiderman's office in 2015

[118] Ex. S31 at App. 704.

[119] Attorney General Healey has essentially admitted that this reporting spurred her investigation and has long cited it to support her claim that the investigation is valid. *See* ECF No. 43. Attorney General Schneiderman has not so directly cited this reporting, but it was reported in late 2015 that these articles prompted the New York investigation. Ex. L at App. 123.

[120] Ex. S33 at App. 720; Ex. S59 at App. 1293–94 (*InsideClimate News* admitting ExxonMobil's projections were in the "mid-range" of what scientists predicted).

[121] *See* Ex. S60 at App. 1302; Ex. S3 at App. 494 (EPA Report from 1983 noting the possibility of a 5°C increase by 2100); Ex. S4 at App. 519 (NAS report from 1983 stating that "temperature increases of a couple degrees or so" were projected for the next century).

[122] Ex. S34 at App. 729 (emphasis omitted); *see also* Ex. S35 at App. 740.

specifically to discuss ExxonMobil's purported climate deception and liability under the Martin Act.[123]

~~49~~**59**. The investigations by the New York and Massachusetts Attorneys General and the Green 20 press conference represented the culmination of Frumhoff ~~and Pawa's~~**, Pawa, Oreskes, Steyer, the Rockefeller Family Fund, and other's** collective efforts to enlist state law enforcement officers to join them in a quest to ~~silence~~**coerce** political opponents~~, enact~~ **to adopt** preferred policy responses to climate change~~,~~ and **to** obtain documents for private lawsuits.

~~50~~**60**. The attorneys general in attendance at the press conference understood that the participation of Frumhoff and Pawa, if reported, could expose the private, financial, and political interests behind the announced investigations. The day after the conference, a reporter from *The Wall Street Journal* contacted Pawa.[~~84~~124] Before responding, Pawa dutifully asked Lemuel Srolovic, Chief of Attorney General Schneiderman's Environmental Protection Bureau, "[w]hat should I say if she asks if I attended?"[~~85~~125] Mr. Srolovic—the Assistant Attorney General who had sent the New York subpoena to ExxonMobil in November 2015—encouraged Pawa to conceal from the press and the public the closed-door meetings. He responded, "[m]y ask is if you speak to the reporter, to not confirm that you attended or otherwise discuss the event."[~~86~~126] **That same day, Mr. Srolovic followed up with Frumhoff as well and**

[123] **Ex. S63 at App. 1333.**
[~~84~~124] Ex. F at App. 80.
[~~85~~125] *Id.*
[~~86~~126] *Id.*

emailed him ExxonMobil's press statement in response to the politically motivated press conference.[127]

~~51~~61. The press conference, the closed-door meetings with activists, and the activists' long-standing desire to obtain ExxonMobil's "internal documents" as part of a campaign to put "pressure on the industry," inducing it to support "legislative and regulatory responses to global warming,"[~~87~~128] form the partisan backdrop against which the New York and Massachusetts investigations must be considered.

D. The ~~Green 20~~Attorneys General Attempt to Conceal ~~their~~Their Misuse of Power from the Public.

~~52~~62. Recognizing the need to avoid public scrutiny, Attorneys General Schneiderman, Healey, and fifteen others entered into an agreement pledging to conceal from the public their activities and communications in furtherance of their political agenda ~~from the public~~. In April and May ~~of~~ 2016, the Green 20 executed a so-called "Climate Change Coalition Common Interest Agreement," which memorialized the twin goals of this illicit enterprise.[~~88~~129] The first goal listed in the agreement, "limiting climate change," reflected the coalition's focus on politics, not law enforcement.[~~89~~130] The second goal, "ensuring the dissemination of accurate information about climate change," confirmed the coalition's willingness to violate First Amendment rights to carry out its agenda.[~~90~~131] They appointed themselves as arbiters of what information is "accurate" as

[127] Ex. S36 at App. 755.
[~~87~~128] Ex. C at App. 40, 56.
[~~88~~129] Ex. V at App. 196–214.
[~~89~~130] *Id.* at App. 196.
[~~90~~131] *Id.*

regards climate change and stood ready to use the full arsenal of law enforcement tools at their disposal against those who did not toe their party line.

~~53~~63. To conceal communications concerning this unconstitutional enterprise from public disclosure, the signatories agreed to maintain the confidentiality of their communications by pledging that, "unless required by law," the parties "shall . . . refuse to disclose" any "(1) information shared in organizing a meeting of the Parties on March 29, 2016, (2) information shared at and after the March 29 meeting . . . and (3) information shared after the execution of this Agreement."[91] ~~The common interest agreement stifles not only public debate about the motivations and legality of the Green 20, but also prevents the public from learning of the political genesis of the Green 20.~~[132] **Under that agreement, a member of the New York Attorney General's staff has been "acting as a general coordinator for the climate change record requests" under each state's public records requests laws.**[133]

64. Attorney General Schneiderman's efforts to conceal records concerning that agreement in response to a public-records request have already resulted in a firm judicial rebuke. The New York Supreme Court recently awarded attorney's fees and costs against the Attorney General for "lack[ing] a reasonable basis" for refusing to produce documents related to the Common Interest Agreement.[134] **Nevertheless, the Attorney General continues to resist requests for communications with the Rockefeller Family Fund related to his**

~~91 *Id.* at App. 196–97~~
132 *Id.* at App. 196–97
133 Ex. S37 at 758.
134 Ex. S38 at App 764.

investigation of ExxonMobil.[135] At the same time, Schneiderman has bragged that he "has been winning most legal battles . . . despite #Exxon's ongoing efforts to thwart his investigation."[136]

65. Another member of the coalition has gone so far as to concede the political motives behind the coalition's selective disclosures. The Vermont Attorney General's Office admitted that it conducts research into those seeking records about the coalition's activities, and upon learning of the requester's affiliation with "coal or Exxon or whatever," the office "give[s] this some thought . . . before we share information with this entity."[137]

66. The Vermont Attorney General's office has continued to rebuff efforts to turn over information sought through public records requests, including a request for the former Vermont Attorney General's private email communications with the New York Attorney General about his investigation of ExxonMobil.[138] Most glaringly, the former Vermont Attorney General failed to appear for a deposition about his private email use concerning this subject.[139] Even though a Vermont court subsequently ordered the former Attorney General to appear for deposition,[140] the former Attorney General declined to answer a majority of questions when he finally appeared for the deposition.[141]

[135] *See* Ex. S39 at App. 772.
[136] Ex. S40 at App. 794.
[137] Ex. S41 at App. 804.
[138] Ex. S42 at App. 812.
[139] Ex. S43 at App. 818.
[140] *Id.*
[141] Ex. S44 at App. 821.

67. The Vermont Attorney General's Office has also resisted efforts to produce emails that were circulated among climate activists and several state attorneys general's offices, including the offices of the New York and Massachusetts Attorneys General. For example, in one email, a staff member of the New York Attorney General's office circulated to over a dozen other attorneys general's offices an article about the energy industry's purported early knowledge of "CO2's Role in Global Warming."[142]

68. In December 2017, over the objection of the Vermont Attorney General's Office, a Vermont court ordered the release of these and other public records. The public records reveal that, within a month of the March 29 press conference, Pawa and Frumhoff continued to press for state-based investigations and litigations against the energy industry.[143] Mere days after the press conference, Pawa took the lead in mobilizing the coalition of attorneys general and created an email list of "AG Folks" in order to "pass along information that may be of interest to AGs on the issue of our time: climate change."[144]

69. Initially withheld Vermont public records also reveal a draft agenda for a workshop called "Potential State Causes of Action Against Major Carbon Producers: Scientific, Legal and Historical Perspectives" that was co-hosted by Frumhoff's Union of Concerned Scientists in the month following the press

[142] Ex. S45 at App. 823.
[143] *Energy & Envtl. Legal Inst. & Free Market Envtl. Law Clinic* v. *Att'y Gen. of Vt.*, No. 349-6-16 Wbcv (Vt. Super. Ct. Dec. 6, 2017).
[144] Ex. S46 at App. 830.

conference.[145] "[S]enior staff from state attorneys general offices in nearly a dozen states,"[146] including Massachusetts and New York,[147] attended the workshop which sought to "[c]reate a 'safe space' for a frank exchange of approaches, ideas, strategies and questions pertaining to potential state causes of action," such as public nuisance claims, "against major carbon producers and the cultural context in which such cases may be brought."[148] Panelists included several climate activists, including Frumhoff, Oreskes, and Sharon Eubanks—an environmental lawyer who has long supported applying the legal strategy against the tobacco industry to litigation against the energy industry.[149] During the workshop, Frumhoff led a panel on "the case for state-based investigations and litigation" and participated in a discussion on "sea level rise and coastal flooding" and how to "trac[e] impacts to carbon producers."[150]

E. ~~The~~Other State Attorneys General ~~of Other States~~ Condemn the ~~Green 20's~~ Investigations as Unlawful.

~~54~~70. The overtly political nature of the March 29 press conference drew a swift and sharp rebuke from other state attorneys general who criticized the Green 20 for using the power of law enforcement as a tool to muzzle ~~dissent and discussions~~public discourse about climate change. The attorneys general of Alabama and Oklahoma stated that "scientific and political debate" "should not be silenced with threats of criminal prosecution by those who believe that their position is the only

[145] Ex S47 at App. 832.
[146] Ex S48 at App. 838.
[147] Ex. S49 at App. 841.
[148] Ex S47 at App. 832.
[149] *Id.*
[150] *Id.*

correct one and that all dissenting voices must therefore be intimidated and coerced into silence."[92][151] They emphasized that "[i]t is inappropriate for State Attorneys General to use the power of their office to attempt to silence core political speech on one of the major policy debates of our time."[93][152]

55[71]. The Louisiana Attorney General similarly observed that "[i]t is one thing to use the legal system to pursue public policy outcomes; but it is quite another to use prosecutorial weapons to intimidate critics, silence free speech, or chill the robust exchange of ideas."[94][153] Likewise, the Kansas Attorney General questioned the "'unprecedented'" and "strictly partisan nature of announcing state 'law enforcement' operations in the presence of a former vice president of the United State[s] who, presumably [as a private citizen], has no role in the enforcement of the 17 states' securities or consumer protection laws."[95][154] The West Virginia Attorney General criticized the attorneys general for "abusing the powers of their office" and stated that the desire to "eliminate fossil fuels . . . should not be driving any legal activity" and that it was improper to "use the power of the office of attorney general to silence [] critics."[96][155]

56[72]. In addition, on June 15, 2016, attorneys general from thirteen states wrote a letter to their "Fellow Attorneys General," in which they explained that the Green 20's effort "to police the global warming debate through the power of the subpoena is a grave mistake" because "[u]sing law enforcement authority to resolve a

[92][151] Ex. X at App. 225.
[93][152] *Id.*
[94][153] Ex. Y at App. 227.
[95][154] Ex. QQ at App. 435.
[96][155] Ex. RR at App. 438–39[40].

public policy debate undermines the trust invested in our offices and threatens free speech."[97][156] The thirteen attorneys further described the Green 20's investigations as "far from routine" because (i) they "target[] a particular type of market participant," namely ~~fossil fuel~~energy companies; (ii) the Green 20 had aligned itself "with the competitors of [its] investigative targets"; and (iii) "the investigation implicates an ongoing public policy debate."[98][157] In conclusion, they asked their fellow attorneys general to "[s]top policing viewpoints."[99][158]

~~57~~73. The actions of Defendants and their Green 20 allies caught the eye of Congress. The Committee on Science, Space, and Technology of the United States House of Representatives launched an inquiry into the investigations undertaken by the Green 20.[100][159] That committee was "concerned that these efforts [of the Green 20] to silence speech are based on political theater rather than legal or scientific arguments, and that they run counter to an attorney general's duty to serve as the guardian of the legal rights of the citizens and to assert, protect, and defend the rights of the people."[101][160] Perceiving a need to provide "oversight" of what it described as "a coordinated attempt to attack the First Amendment rights of American citizens," the Committee requested the production of certain records and information from the

[97][156] Ex. SS at App. 444.
[98][157] *Id.*
[99][158] *Id.* at App. 447.
[100][159] Ex. Z at App. 229.
[101][160] *Id.* (internal quotation marks omitted).
[102][161] *Id.* at App. 232.

attorneys general.[102][161] The attorneys general have thus far refused to voluntarily cooperate with the inquiry.[103][162]

5874. After Attorney General Schneiderman refused to turn over documents requested by the House Committee and criticized its "unfounded claims about the NYOAG's motives,"[104][163] the House Committee issued subpoenas to Attorney General Schneiderman, Attorney General Healey, and eight environmental organizations in order to "obtain documents related to coordinated efforts to deprive companies, nonprofit organizations, scientists and scholars of their First Amendment rights."[105][164] It further criticized the attorneys general for "hav[ing] appointed themselves to decide what is valid and what is invalid regarding climate change."[106][165]

5975. Several senators ~~have~~ urged **former** United States Attorney General Loretta Lynch to confirm that the Department of Justice is not investigating, and will not investigate, United States citizens or corporations on the basis of their views on climate change.[107][166] The senators observed that the Green 20's investigations "provide disturbing confirmation that government officials at all levels are threatening to wield the sword of law enforcement to silence debate on climate change."[108][167] The letter concluded by asking Attorney General Lynch to explain the steps she is taking "to

[102][161] *Id.* at App. 232.
[103][162] *See, e.g.*, Ex. TT at App. 449; Ex. UU at App. 453.
[104][163] Ex. AA at App. 237.
[105][164] Ex. BB at App. 240.
[106][165] *Id.*
[107][166] Ex. DD at App. 248.
[108][167] *Id.*

prevent state law enforcement officers from unconstitutionally harassing private entities or individuals simply for disagreeing with the prevailing climate change orthodoxy."[109][168]

F. The Subpoena and the CID Reflect the Improper Political Objectives of the Green 20 Coalition.

60[76]. The twin goals of the Green 20—advancing a political agenda and trammeling constitutional rights in the process—are fully reflected in the ~~subpoena and the CID.~~**subpoenas and the CID themselves. These instruments purport to investigate easily debunked theories, thereby revealing them as nothing more than thinly veiled pretexts for unlawful state action.**

The New York ~~Subpoena~~Subpoenas

61[77]. Attorney General Schneiderman is authorized to issue a subpoena only if (i) there is "some factual basis shown to support the subpoena";[110][169] and (ii) the information sought "bear[s] a reasonable relation to the subject matter under investigation and the public purpose to be served."[111][170] Neither standard is met here.

62[78]. The **initial** New York subpoena**, issued on November 4, 2015,** purports to investigate whether ExxonMobil violated New York State Executive Law Article 5, Section 63(12), General Business Law Article 22-A or 23-A and "any related violation, or any matter which the Attorney General deems pertinent thereto."[112][171] These statutes have at most a six-year limitations period.[113][172]

[109][168] *Id.*
[110][169] *Napatco, Inc.* v. *Lefkowitz*, 43 N.Y.2d 884, 885–86 (1978).
[111][170] *Myerson* v. *Lentini Bros. Moving & Storage Co.*, 33 N.Y.2d 250, 256 (1973).
[112][171] Ex. EE at App. 251.
[113][172] *See, e.g.*, *State ex rel. Spitzer* v. *Daicel Chem. Indus., Ltd.*, 840 N.Y.S.2d 8, 11–12 (1st Dep't 2007); *Podraza* v. *Carriero*, 630 N.Y.S.2d 163, 169 (4th Dep't 1995); *State* v. *Bronxville Glen I Assocs.*, 581 N.Y.S.2d 189, 190 (1st Dep't 1992).

~~63~~79. During the six-year limitations period, however, ExxonMobil made no statements that could give rise to fraud as alleged in the subpoena. For more than a decade, ExxonMobil has publicly acknowledged that climate change presents significant risks that could affect its business. For example, ExxonMobil's *2006 Corporate Citizenship Report* recognized that "the risk to society and ecosystems from rising greenhouse gas emissions could prove to be significant" and reasoned that "strategies that address the risk need to be developed and implemented."~~114~~173 In addition, in 2002, ExxonMobil, along with three other companies, helped launch the Global Climate and Energy Project at Stanford University, which has a mission of "conduct[ing] fundamental research on technologies that will permit the development of global energy systems with significantly lower greenhouse gas emissions."~~115~~174

~~64~~80. ExxonMobil has also discussed these risks in its public SEC filings. For example, in its 2006 10-K, ExxonMobil stated that "laws and regulations related to . . . risks of global climate change" "have been, and may in the future" continue to impact its operations.~~116~~175 Similarly, in its 2015 10-K, ExxonMobil noted that the "risk of climate change" and "current and pending greenhouse gas regulations" may increase its "compliance costs."~~117~~176 Long before the six-year statute of limitations period, ExxonMobil disclosed and acknowledged the risks that supposedly gave rise to Attorney General Schneiderman's investigation.

~~114~~173 Ex. H at App. 103.
~~115~~174 Ex. FF at App. 270.
~~116~~175 Ex. GG at App. 277–78.
~~117~~176 Ex. HH at App. 284.

6581. Notwithstanding that six-year limitations period and the absence of any conduct within that timeframe that could give rise to a statutory violation, the document requests in the subpoena span 39 years and extend to nearly every document ExxonMobil has ever created that in any way concerns climate change. For example, the subpoena demands "[a]ll Documents and Communications" from 1977 to the present, "[c]oncerning any research, analysis, assessment, evaluation, modelling or other consideration performed by You, on Your behalf, or with funding provided by You Concerning the causes of Climate Change."[118][177]

6682. The subpoena includes 10 other similarly sweeping requests, such as (i) a demand for all documents and communications that ExxonMobil has produced since 1977 relating to "the impacts of Climate Change"; and (ii) exemplars of all "advertisements, flyers, promotional materials, and informational materials of any type" that ExxonMobil has produced in the last 11 years concerning climate change.[119][178] Other requests target Attorney General Schneiderman's perceived political opponents in the climate change debate by demanding ExxonMobil's communications with trade associations and industry groups that seek to promote oil and gas interests.[120][179]

6783. In response to some of these requests, ExxonMobil asserted First Amendment privileges, including in connection with ExxonMobil scientists' participation in non-profit research organizations.

[118][177] Ex. HEE at App. 257–58 (Request No. 1).
[119][178] *Id.* at App. 258–59 (Request Nos. 2, 89).
[120][179] *Id.* at App. 258 (Request No. 6).

~~68~~84. Moreover, almost all of the sweeping demands in the subpoena reach far beyond conduct bearing any connection to the State of New York. Ten of the eleven document requests make blanket demands for all of ExxonMobil's documents or communications on a broad topic, with no attempt to restrict the scope of production to documents or communications having any connection to New York.[~~121~~180] Only two of the requests even mention New York.[~~122~~181] And, while the subpoena seeks ExxonMobil's communications with five named organizations, only one of them is based in New York.[~~123~~182]

85. After receiving hundreds of thousands of documents from over 100 ExxonMobil custodians in response to its initial subpoena, the New York Attorney General's Office has issued additional subpoenas seeking extensive numbers of documents and testimony from a number of witnesses. When considering ExxonMobil's challenge to one of those subpoenas, New York Supreme Court Justice Barry Ostrager remarked that the New York Attorney General's request for documents went "way beyond proportionality."[183]

86. The New York Attorney General's Office further served five testimonial subpoenas for "fact witnesses" on May 8, 2017, as well as a subpoena that purports to compel the production of documents pertaining to oil and gas reserves and the impairment of assets. Unsatisfied even with the testimony of those witnesses, the New York Attorney General has continued to subpoena

[~~121~~180] *Id.* at App. 258–59 (Request Nos. 1, 10).
[~~122~~181] *Id.* at App. 259 (Request Nos. 9, 11).
[~~123~~182] *Id.* at App. 258 (Request No. 6).
[183] **Ex. S50 at App. 897.**

additional individuals. On July 18, 2017, the Attorney General's Office issued another testimonial subpoena, and on September 14, 2017 the Office served seven more testimonial subpoenas.

The Massachusetts CID

~~69~~**87**. ~~The CID was served by~~ Attorney General Healey **served the CID** on ExxonMobil's registered agent in Suffolk County, Massachusetts, on April 19, 2016. According to the CID, there is "a pending investigation concerning [ExxonMobil's] potential violations of [MASS. GEN. LAWS] ch. 93A, § 2."~~124~~**184** That statute prohibits "unfair or deceptive acts or practices" in "trade or commerce"~~125~~**185** and has a four-year statute of limitations.~~126~~**186** The CID specifies two types of transactions under investigation: ExxonMobil's (i) "marketing and/or sale of energy and other fossil fuel derived products to consumers in the Commonwealth," and (ii) "marketing and/or sale of securities" to Massachusetts investors.~~127~~**187** The requested documents pertain largely to information related to climate change in the possession of ExxonMobil in Texas where it is headquartered and maintains its principal place of business.

~~70~~**88**. ExxonMobil could not have committed the possible offenses that the CID purports to investigate for at least two reasons. First, at no point during the past five years—more than one year before the limitations period began—has ExxonMobil (i) sold fossil fuel derived products to consumers in Massachusetts, or (ii) owned or

~~124~~184 ~~*Id.*~~ Ex. II at App. 286.
~~125~~185 MASS. GEN. LAWS ch. 93A, §2(a).
~~126~~186 MASS. GEN. LAWS ch. 260, § 5A.
~~127~~187 Ex. II at App. ~~86~~286.

operated a single retail store or gas station in the Commonwealth.[128][188] Second, ExxonMobil has not sold any form of equity to the general public in Massachusetts since at least 2011, which is also well beyond the limitations period.[129][189] In the past decade, ExxonMobil has sold debt only to underwriters outside the Commonwealth, and ExxonMobil did not market those offerings to Massachusetts investors.[130][190]

[71][89]. The CID's focus on events, activities, and records outside of Massachusetts is demonstrated by the items it demands that ExxonMobil search for and produce. For example, the CID demands documents that relate to or support 11 specific statements.[131][191] None of those statements were made in Massachusetts.[132][192] The CID also seeks ExxonMobil's communications with 12 named organizations,[133][193] but only one of these organizations has an office in Massachusetts and ExxonMobil's communications with the other 11 organizations likely occurred outside of Massachusetts. Finally, the CID requests all documents and communications related to ExxonMobil's publicly issued reports, press releases, and Securities and Exchange Commission ("SEC") filings, which were issued outside of Massachusetts,[134][194] and all

[128][188] Any service station that sells fossil fuel derived products under an "Exxon" or "Mobil" banner is owned and operated independently. In addition, distribution facilities in Massachusetts, including Everett Terminal, have not sold products to consumers during the limitations period.

[129][189] Ex. JJ at App. 317.

[130][190] *Id.* This is subject to one exception. During the limitations period, ExxonMobil has sold short-term, fixed-rate notes, which mature in 270 days or less, to institutional investors in Massachusetts, in specially exempted commercial paper transactions. *Id.*; *see* MASS. GEN. LAWS ch. 110A, § 402(a)(10); *see also* 15 U. S. C. § 77c(a)(3).

[131][191] Ex. II at App. 299–300 (Request Nos. 8–11).

[132][192] *Id.* (Request Nos. 8–11).

[133][193] *Id.* at App. 298 (Request No. 5).

[134][194] *Id.* at App. 301–03 (Request Nos. 15–16, 19, 22).

documents and communications related to ExxonMobil's climate change research, which also occurred outside of Massachusetts.[135][195]

~~72~~90. The absence of any factual basis for investigating ExxonMobil's alleged fraud is glaring, particularly in light of the heavy burden imposed by the CID. Spanning 25 pages and containing 38 broadly worded document requests, the CID unreasonably demands production of essentially any and all communications and documents relating to climate change that ExxonMobil has produced or received over the last 40 years. For example, the CID requests all documents and communications "concerning Exxon's development, planning, implementation, review, and analysis of research efforts to study CO_2 emissions . . . and the effects of these emissions on the Climate" since 1976 and all documents and communications concerning "any research, study, and/or evaluation by ExxonMobil and/or any other fossil fuel company regarding the Climate Change Radiative Forcing Effect of" methane since 2010.[136][196] It also requests all documents and communications concerning papers and presentations given by ExxonMobil scientists since 1976[137][197] and demands production of ExxonMobil's climate change related speeches, public reports, press releases, and SEC filings over the last 20 years.[138][198] Moreover, it fails to reasonably describe several categories of documents by, for example, requesting documents related to ExxonMobil's "awareness," "internal

[135][195] *Id.* at App. 297–98, 300–03 (Request Nos. 1–4, 14, 17, 22).

[136][196] *Id.* at App. 297, 302 (Request Nos. 1, 17).

[137][197] *Id.* at App. 297–98. (Request Nos. 2–4).

[138][198] *Id.* at App. 299 (Request No. 8 (all documents since April 1, 1997)); *id.* at App. 302–03 (Request No. 22 (all documents since 2006)); *id.* at App. 299–302 (Request Nos. 9–12, 14–16, 19 (all documents since 2010)). The CID also demands the testimony of ExxonMobil officers, directors, or managing agents who can testify about a variety of subjects, including "[a]ll topics covered" in the CID. *Id.* at App. 306 (Schedule B).

consideration," and "decision making" with respect to certain climate change matters.[139][199]

~~73~~91. The CID's narrower requests, however, are in some instances more troubling than its overly broad ones. They appear to target groups simply because they hold views with which Attorney General Healey disagrees. All 12 ~~of the~~ organizations ~~that~~**with whom** ExxonMobil is directed to produce ~~its~~ communications ~~with~~ have been identified by environmental advocacy groups as ~~opposing~~**opponents of certain** policies ~~in favor of~~ addressing climate change or ~~disputing~~**"deniers" of** the science in support of climate change.[140][200] The CID also targets statements that are not in accord with the Green 20's preferred views on climate change. These include statements of pure opinion on policy, such as the suggestion that "[i]ssues such as global poverty [are] more pressing than climate change, and billions of people without access to energy would benefit from oil and gas supplies."[141][201]

G. Attorney General Schneiderman Shifts Investigative Theories in a Search for Leverage over ExxonMobil in a Public Policy Debate.

~~74~~92. After receiving Attorney General Schneiderman's subpoena, ExxonMobil made a good-faith effort to comply with his request for information about its climate change research in the 1970s and 1980s. ExxonMobil provided his office with well over one million pages of documents, at substantial cost to the Company, with the expectation that a fair and impartial investigation would be conducted. ~~Less than a~~

[139][199] *Id.* at App. 298–99, 302 (Request Nos. 7–8, 18).
[140][200] *See, e.g.*, Ex. VV at App. 455–57.
[141][201] *See, e.g.*, Ex. II at App. 299–300 (Request No. 9). **Further demonstrating that this type of statement is clearly an expression of a policy opinion, an Op-ed appeared in the Wall Street Journal recently making this same argument. Ex. S61 at App. 1311–14.**

~~month ago, and well after ExxonMobil commenced this action against Attorney General Healey, the~~In September 2016, a spokesman for Attorney General Schneiderman stated that ExxonMobil's "historic climate change research" was no longer "the focus of this investigation."[~~142~~202]

~~75~~93. Rather than close the investigation, however, Attorney General Schneiderman simply unveiled another theory. As he explained in a lengthy interview published in *The New York Times*, Attorney General Schneiderman ~~now~~ focused instead on the so-called "stranded assets theory." His office intended to examine whether ExxonMobil had overstated its oil and gas reserves and assets by not accounting for "global efforts to address climate change" that might require it in the future "to leave enormous amounts of oil reserves in the ground"—*i.e.*, cause the assets to be "stranded."[~~143~~203] Without offering—or possessing—any supporting evidence whatsoever, Attorney General Schneiderman inappropriately opined that there "may be massive securities fraud" at ExxonMobil based on its estimation of proved reserves and the valuation of its assets.[~~144~~204]

~~76. Attorney General Schneiderman has directed ExxonMobil to begin producing documents on its estimation of oil and gas reserves, and ExxonMobil has engaged in a dialogue with his office about that request. It is now apparent that Attorney General Schneiderman is simply searching for a legal theory, however flimsy, that will allow him to pressure ExxonMobil on the policy debate over climate change.~~

[~~142~~202] Ex. KK at App. 321.
[~~143~~203] Ex. MM at App. 351.
[~~144~~204] *Id.*

~~With the filing of this lawsuit, ExxonMobil is challenging what has now been revealed as a manifestly improper investigation being conducted in bad faith.~~

94. In a more recent shift in theory, Attorney General Schneiderman has begun a focus on the impairment of long-lived assets.[205]

H. An Investigation of ExxonMobil's Reporting of Oil and Gas Reserves and Assets Is a Thinly Veiled Pretext.

~~77~~**95**. Attorney General Schneiderman's decision to investigate ExxonMobil's reserves estimates under a stranded asset theory is particularly egregious because it cannot be reconciled with binding regulations issued by the SEC, which apply strict guidelines to the estimation of proved reserves.

~~78~~**96**. Those regulations prohibit companies like ExxonMobil from considering the impact of future regulations when estimating reserves. To the contrary, they require ExxonMobil to calculate its proved reserves in light of "*existing* economic conditions, operating methods, and *government regulations*."~~[145]~~[206] The SEC adopted that definition of proved reserves as part of its efforts to provide investors with a "comprehensive understanding of oil and gas reserves, which should help investors evaluate the relative value of oil and gas companies."~~[146]~~[207] The SEC's definition of proved oil and gas reserves thus reflects its reasoned judgment about how best to supply investors with information about the relative value of energy companies, as well as its balancing of competing priorities, such as the agency's desire for comprehensive disclosures, that are

[205] **Ex. S2 at App. 482.**

~~[145] *Modernization of Oil & Gas Reporting*, SEC Release No. 78, File No. S7-15-08, 2008 WL 5423153, at *66 (Dec. 31, 2008~~[206] **17 C.F.R. § 210.4–10(a)** (emphasis added).

~~[146] *Id.* at *1~~[207] ***Modernization of Oil & Gas Reporting*, SEC Release No. 78, File No. S7-15-08, 2008 WL 5423153, at *66 (Dec. 31, 2008)**.

not unduly burdensome, and which investors can easily compare. Attorney General Schneiderman's theory of "massive securities fraud" in ExxonMobil's reported reserves cannot be reconciled with binding SEC regulations about how those reserves must be reported.

~~79~~97. The same rationale applies to Attorney General Schneiderman's purported investigation of the impairment of ExxonMobil's assets. The SEC recognizes as authoritative the accounting standards issued by the Financial Accounting Standards Board ("FASB").~~147~~208 The FASB's rules concerning the impairment of assets require ExxonMobil to "incorporate [its] own assumptions" about future events when deciding whether its assets are impaired.~~148~~209 Contravening those rules, the Attorney General's theory requires that ExxonMobil adopt his assumptions about the likelihood of possible future climate change regulations and then incorporate those assumptions into its determination of whether an asset has been impaired. Attorney General Schneiderman cannot hold ExxonMobil liable for complying with federal law.

~~80~~98. Attorney General Healey's investigation also purports to encompass the same unsound theory of fraud.~~149~~210 The decision to embrace this theory speaks volumes about the pretextual nature of the investigations being conducted by Attorneys General Schneiderman and Healey. To read the relevant SEC rules is to understand why

~~147~~208 *See* Commission Statement of Policy Reaffirming the Status of the FASB as a Designated Private-Sector Standard Setter, 68 Fed. Reg. 23,333–401 (May 1, 2003).

~~148~~209 *See* FASB Accounting Standards Codification 360-10-35-30; *see also* Statement of Financial Accounting Standards No. 144 ¶ 17.

~~149~~210 Ex. NN at App. 367, 372; ~~Opp'n. of Att'y Gen. Maura Healey to Pl. Exxon Mobil Corp.'s Mot. for Prelim. Inj. at 8, *ExxonMobil* v. *Healey*, No. 4:16-cv-00469-K (N.D. Tex. Aug. 8, 2016) (Dkt~~ECF. No. 43~~)~~ ("If substantial portions of Exxon's vast fossil fuel reserves are unable to be burned due to carbon dioxide emissions limits put in place to stabilize global average temperature, those assets—valued in the billions—will be stranded, placing shareholder value at risk.").

ExxonMobil may not account for future climate change regulations when calculating its proved reserves. And to read the applicable accounting standards is to understand why it is impermissible for the Attorneys General to impose their assumptions about the financial impact of possible future climate change regulations on companies that are required to develop their own independent assumptions. The Attorneys General's claims that they are conducting a bona fide investigation premised on ExxonMobil's supposed failure to account for the Attorneys ~~Generals'~~**General's** expectations regarding the financial impact of future regulations thus cannot be ~~taken seriously.~~**credited.**

99. Their true objectives are clear: to fish indiscriminately through ExxonMobil's records with the hope of finding some violation of some law that one of them might be empowered to enforce, or otherwise to harass ExxonMobil into endorsing the Green 20's policy views regarding how the United States should respond to climate change.

~~81~~**100**. The desire of Attorneys General Schneiderman and Healey to impose liability on ExxonMobil for complying with SEC disclosure requirements, and the accounting methodologies incorporated in them, would create a direct conflict with federal law. Even if the New York or Massachusetts Attorneys General were to seek only to layer additional disclosure requirements beyond those imposed by the SEC, this would frustrate, and pose an obstacle to, Congress's and the SEC's efforts to create a uniform market for securities and provide consistent metrics by which investors can measure oil and gas companies on a relative basis.

I. ExxonMobil Files Suit to Protect ~~its~~Its Rights.

~~82~~101. ExxonMobil has challenged members of the Green 20 for violating its constitutional rights. Attorney General Walker issued a subpoena to ExxonMobil on March 15, 2016.[~~150~~211] ExxonMobil responded by seeking a declaratory judgment that Attorney General Walker's subpoena was illegal and unenforceable because it violated ExxonMobil's rights under the United States and Texas constitutions.[~~151~~212]

~~83~~102. The Attorneys General of Texas and Alabama intervened in that action in an effort to protect the constitutional rights of their citizens. They criticized Attorney General Walker for undertaking an investigation "driven by ideology, and not law."[~~152~~213] The Texas Attorney General called Attorney General Walker's purported investigation "a fishing expedition of the worst kind" and recognized it as "an effort to punish Exxon for daring to hold an opinion on climate change that differs from that of radical environmentalists."[~~153~~214] The Alabama Attorney General echoed those sentiments, stating that the pending action in Texas "is more than just a free speech case. It is a battle over whether a government official has a right to launch a criminal investigation against anyone who doesn't share his radical views."[~~154~~215]

~~84~~103. On June 30, 2016, Attorney General Walker and ExxonMobil entered into a joint stipulation of dismissal, whereby the Attorney General agreed to withdraw his subpoena and ExxonMobil agreed to withdraw its litigation challenging the subpoena.

[~~150~~211] Ex. WW at App. 459–77.
[~~151~~212] Ex. LL at App. 323–49.
[~~152~~213] Ex. OO at App. 395.
[~~153~~214] Ex. CC at App. 244–45.
[~~154~~215] Ex. W at App. 216.

85104. ExxonMobil commenced this action in the Northern District of Texas on June 15, 2016, seeking a preliminary injunction from this Court that would bar Attorney General Healey from enforcing the CID. In an attempt to defend Attorney General Healey's constitutionally infirm CID, Attorney General Schneiderman, along with other attorneys general, filed an amicus brief on August 8, 2016.[155][216] They argued that Attorney General Healey has a "compelling interest in the traditional authority" of her office "to investigate and combat violations of state law."[156][217]

86105. Recognizing that there was nothing "traditional" about Attorney General Healey's use of state power, attorneys general from eleven states filed an amicus brief in support of ExxonMobil's preliminary injunction motion.[157][218] "As chief legal officers" of their respective states, they explained that their investigative power "does not include the right to engage in unrestrained, investigative excursions to promulgate a social ideology, or chill the expression of points of view, in international policy debates."[158][219] As a result, they noted that "[u]sing law enforcement authority to resolve a public policy debate undermines the trust invested in our offices and threatens free speech."[159][220] They concluded, "Regrettably, history is embroiled with examples where the legitimate exercise of law enforcement is soiled with political ends rather than legal

[155] Mem. of Law for *Amici Curiae* States of Maryland, New York, Illinois, Iowa, Maine, Minnesota, Mississippi, New Mexico, Oregon, Rhode Island, Vermont, Washington, and the District of Columbia and the U.S. Virgin Islands in Support of Def.'s Mot. to Dismiss and in Opp'n. to Pl.'s Motion for a Prelim. Inj. at 1, *Exxon Mobil Corp.* v. *Healey*, No. 4:16-CV-469-K (N.D. Tex. Aug. 8, 2016) (Dkt.[216] ECF No. 47).

[156][217] *Id.* at 11.

[157] Br. of Texas, Louisiana, South Carolina, Alabama, Michigan, Arizona, Wisconsin, Nebraska, Oklahoma, Utah, and Nevada as *Amici Curiae* in Supp. of Pl.'s Mot. for Prelim. Inj. at Attachment 2, *Exxon Mobil Corp.* v. *Healey*, No. 4:16-CV-469-K (N.D. Tex. Sept. 8, 2016) (Dkt.[218] ECF No. 63)-2.

[158][219] *Id.* at 13.

[159][220] *Id.*

ones. Massachusetts seeks to ~~repeats~~repeat[] that unfortunate history. That the statements and workings of the 'AG's United for Clean Power' are entirely one-sided, and target only certain participants in the climate change debate, speaks loudly enough."~~160~~221

~~87. ExxonMobil's motion for a preliminary injunction against Attorney General Healey has been briefed and argued and is now submitted before this Court.~~

106. On November 10, 2016, ExxonMobil filed its First Amended Complaint which (i) joined the Attorney General of New York as a defendant and (ii) added new claims of conspiracy and federal preemption.

107. The allegations in ExxonMobil's lawsuit against Attorneys General Schneiderman and Healey were sufficiently compelling that Northern District of Texas Judge Ed Kinkeade ordered discovery on the Attorneys General's bad faith.[222] Explaining that decision, Judge Kinkeade expressed "concern" that "the anticipatory nature of Attorney General Healey's remarks" at the March 29 press conference "about the outcome of the Exxon investigation" and "Attorney General Healey's actions leading up to the issuance of the CID" present the question of whether Attorney General Healey exhibited "bias or prejudgment about what the investigation of Exxon would discover."[223] Judge Kinkeade reaffirmed that conclusion in a subsequent order, where he expressed concern that the

~~160~~221 *Id.* at ~~9~~11.

222 ECF No. 73. In December 2016, this order was stayed pending briefing on the issue of personal jurisdiction. ECF Nos. 163, 164. In March 2017, the federal judge transferred the action to the Southern District of New York. ECF No. 180. Since then, discovery has been stayed indefinitely.

223 ECF No. 73 at 3–5.

investigations conducted by Attorneys General Schneiderman and Healey may be means "to further their personal agendas by using the vast power of the government to silence the voices of all those who disagree with them."[224]

108. In early 2017, ExxonMobil's lawsuit was transferred to the Southern District of New York—the venue of the March 2016 press conference—with Judge Kinkeade's conclusion that "[t]he merits of each of Exxon's claims involve important issues that should be determined by a court."[225]

109. In June 2017, attorneys general from twelve states filed another amicus brief in support of ExxonMobil.[226] While recognizing that they may use their subpoena power "to identify and remedy unlawful conduct," these attorneys general explained that "[t]his power, however, does not include the right to engage in unrestrained, pretextual investigative excursions to promote one side of an international public policy debate, or chill the expression of viewpoints in those debates."[227] They further explained, "Defendants are not using their power in an impartial manner. Rather, they are embracing one side of a multi-faceted and robust policy debate, and simultaneously seeking to censor opposing viewpoints. This is bad faith."[228]

[224] ECF No. 180 at 5.
[225] *Id.* at 2.
[226] ECF No. 192-3.
[227] *Id.* at 8.
[228] *Id.* at 9.

THE ~~SUBPOENA AND CID~~INVESTIGATIONS VIOLATE EXXONMOBIL'S RIGHTS

~~88~~110. The facts recited above demonstrate the pretextual nature of the stated reasons for the **Attorneys General's** investigations~~ conducted by Attorneys General Schneiderman and Healey~~. The statements Attorneys General Schneiderman and Healey made at **(and after)** the press conference~~ and after~~, the climate change coalition common interest agreement, and ~~recently released emails~~ **other documents in the public record** reveal the improper purpose of the investigations~~:~~**. The Attorneys General seek** to change the political calculus surrounding ~~the debate~~**public discourse** about **climate** policy ~~responses to climate change~~ by (1) targeting speech that the Attorneys General perceive to ~~support~~**advance** political ~~perspectives~~**viewpoints** on climate change that differ from their own, and (2) exposing ExxonMobil's documents that may be politically useful to climate activists **aligned with the Attorneys General's agenda**.

~~89. The pretextual character of the investigations is brought into sharp relief when the scope of the subpoena and the CID – which demand nearly 40 years of records – are contrasted with the, at most, six-year limitations periods of the statutes that purportedly authorize the investigations.~~

~~90~~111. Neither Attorney General Schneiderman nor Attorney General Healey (nor, indeed, any other public official) may use the power of the state to prescribe what shall be orthodox in matters of public concern. ~~By deploying the law enforcement authority of their offices to target one side of a political debate, their actions violated – and continue to violate –~~ **It is improper under the United States and Texas**

Constitutions for state governments to restrict the range of permissible viewpoints by commencing investigations against those identified with disfavored policy positions. Such viewpoint discrimination violates the First Amendment.

~~91~~**112**. It follows from the political character of the subpoena and the CID and their remarkably broad scope that they also violate the Fourth Amendment. Their burdensome demands for irrelevant records violate the Fourth Amendment's reasonableness requirement, as well as its prohibition on fishing expeditions. Indeed, the evolving justifications for the New York and Massachusetts inquiries confirm that they are investigations driven by the identity of the target, not any good faith belief that a law was broken.

~~92~~**113**. The investigations also fail to meet the requirements of due process. Attorneys General Schneiderman and Healey have publicly declared not only that they believe ExxonMobil and other ~~fossil fuel~~**energy** companies pose an existential risk to the planet, but also the improper purpose of their investigations: to ~~silence ExxonMobil's voice in the public debate regarding climate change and to~~ pressure ExxonMobil to support polices the Attorneys General favor **in the public debate regarding climate change**. Even worse, Attorney General Schneiderman has publicly accused ExxonMobil of engaging in a "massive securities fraud," ~~without any basis whatsoever, and~~ Attorney General Healey **has also** declared, before her investigation even began, that she knew how it would end: with a finding that ExxonMobil violated the law.[~~161~~229] The improper political bias that inspired the New York and Massachusetts

[~~161~~229] Ex. B at App. 20–21.

investigations disqualifies Attorneys General Schneiderman and Healey from serving as the disinterested prosecutors required by the Constitution.

~~93~~114. In the rush to fill what Attorney General Schneiderman described as a "[legislative] breach" in Congress regarding climate change, both he and Attorney General Healey have also openly and intentionally infringed on Congress's powers to regulate interstate commerce. Their investigations seek to regulate speech and conduct that occur almost entirely outside of New York and Massachusetts. Where a state seeks to regulate and burden out-of-state speech, as the ~~subpoena and the CID~~investigations do here, the state improperly encroaches on Congress's exclusive authority to regulate interstate commerce and violates the Dormant Commerce Clause.

~~94~~115. The Attorneys ~~General Schneiderman and Healey's new~~General's focus on ExxonMobil's reporting of proved reserves and assets is equally impermissible. They seek to hold ExxonMobil liable for not taking into account possible future regulations concerning climate change and carbon emissions when estimating proved reserves and reporting assets. But that theory cannot be reconciled with the SEC's requirement that ExxonMobil calculate its proved reserves based only on "existing" regulations, not future regulations. This facet of the investigation, therefore, impermissibly conflicts with, and poses an obstacle to, the goals and purposes of federal law. That conflict is also present in the Attorneys General's investigation of how ExxonMobil determines under binding accounting rules whether an asset has become impaired.

~~95. The subpoena and the CID also constitute an abuse of process because they were issued for the improper purposes described above.~~

116. It is equally improper under Texas common law for litigants to misuse legal process for an objective other than the one for which the process is intended. The Attorneys General are misusing process to apply pressure on perceived political opponents to alter their views on a matter of public concern. Such conduct constitutes an abuse of process in violation of the common law of Texas.

117. Participation in a conspiracy in furtherance of either objective (constitutional violations and abuse of process) is unlawful in its own right.

~~96~~118. ExxonMobil asserts the claims herein based on the facts available to it in the public record from, among other things, press accounts and freedom of information requests made by third parties. ExxonMobil anticipates that discovery from the Attorneys General ~~Schneiderman and Healey~~, as well as third parties, will reveal substantial additional evidence in support of its claims.

EXXONMOBIL HAS BEEN INJURED BY THE ~~SUBPOENA AND THE CID~~INVESTIGATIONS

~~97~~119. The ~~subpoena and the CID~~climate change investigations have injured, are injuring, and will continue to injure ExxonMobil.

~~98~~120. ExxonMobil is an active participant in ~~the policy debate~~public discourse about ~~potential responses to~~ climate change and climate policy. It has engaged in ~~that debate~~these discussions for decades, participating in the Intergovernmental Panel on Climate Change since its inception and contributing to every report issued by the organization since 1995. ~~Since 2009~~For more than a decade, ExxonMobil has widely and publicly confirmed that it "recognize[s] that the risk of climate change and its

potential impacts on society and ecosystems may prove to be significant."[230] ExxonMobil has also publicly advocated ~~for~~ a ~~carbon~~ tax ~~as its preferred method to regulate~~on carbon emissions~~. Proponents of a carbon tax on~~ greenhouse gas emissions ~~argue that increasing taxes on carbon can "level the playing field among different sources of energy."[162]~~ since 2009.[231]

121. In conducting its business, ExxonMobil addresses the potential for future climate policy by applying proxy cost of carbon mechanisms, which seek to reflect potential policies governments may employ related to the exploration, development, production, transportation or use of carbon-based fuels.[232] This cost, which in some regions may approach $80 per ton by 2040, has been included in ExxonMobil's *Outlook for Energy* for several years.[233] Further, ExxonMobil requires all of its business lines to include, where appropriate, an estimate of greenhouse gas-related emissions costs in their economics when seeking funding for capital investments.[234]

122. For the past decade, through its annual *Outlook for Energy* publication, ExxonMobil has sought to "promote better understanding of the issues shaping the world's energy future"—including how best to balance and manage concerns regarding the risks posed by climate change and the ever-

[230] Ex. G at App. 93; *see also* Ex. H at App. 103 ("Because the risk to society and ecosystems from rising greenhouse gas emissions could prove to be significant, strategies that address the risk need to be developed and implemented.").
~~[162] Ex. PP at App. 402.~~
[231] Ex. T at App. 182.
[232] *Id.* at App. 190.
[233] *Id.*
[234] *Id.*

growing energy needs of an increasing global middle class.[235] In its 2014 *Outlook for Energy*, ExxonMobil expressed its forward-looking view that energy demand from both traditional and renewable sources is expected to rise for the foreseeable future. By the year 2040, ExxonMobil stated that it expects to see "2 billion more people on the planet," a "130 percent larger global economy," and "about 35 percent greater demand for energy."[236] The company explained that, although renewables "will grow by close to 60 percent," demand for natural gas and oil will also grow by "65 percent" and "25 percent," respectively.[237] "The need for energy will continue to grow as economies expand, living standards rise and the world's population grows," ExxonMobil said. With respect to climate policy, ExxonMobil wrote:

> To meet this demand in the most effective way, none of our energy options should be arbitrarily denied, dismissed, penalized or promoted. And free trade opportunities should be facilitated – not curtailed. . . . Free markets supported by reliable public policies remain essential to creating economic opportunities and encouraging the private-sector investments that are critical to meeting people's energy needs.[238]

123. ExxonMobil has also expressed its view on the policy tradeoffs of certain climate initiatives. For example, ExxonMobil stated that any plan to reduce carbon-based emissions "in the range of 80 percent through the year 2040" in an effort to "stabiliz[e] world temperature increases not to exceed 2 degrees Celsius by 2100" is unlikely to be achieved because "the transition to lower

[235] Ex. S58 at App. 1229.
[236] *Id.* at App. 1230.
[237] *Id.* at App. 1270.
[238] *Id.* at 1278.

carbon energy sources will . . . take time."[239] ExxonMobil has stated that "renewable sources, such as solar and wind, despite very rapid growth rates, cannot scale up quickly enough to meet global demand growth while at the same time displacing more traditional sources of energy."[240] According to ExxonMobil, "[f]actors limiting further penetration of renewables include scalability, geographic dispersion, intermittency (in the case of solar and wind), and cost relative to other sources."[241] The company further clarified that, accounting for current and future taxes on carbon emissions—which are embedded into energy demand projections that appear in the *Outlook for Energy*—did not change its perspective that the "cost limitations of renewables are likely to persist."[242]

124. While Attorneys General Schneiderman and Healey and the other members of the Green 20 are entitled to disagree with ExxonMobil's position on the proper policy responses to climate change, no member of that coalition is entitled to ~~silence or seek to intimidate~~target one side of that discussion (or the debate about any other important public issue) to alter its viewpoints through ~~the issuance of~~ baseless investigations and burdensome subpoenas. ExxonMobil intends—and has a constitutional right—to continue to advance its perspective in the national discussions over how best to respond to climate change and the likely future mix of energy sources. Its right to do so should not be violated through this exercise of government power.

[239] Ex. S56 at App. 1150, 1152.
[240] *Id.* at 1152–53.
[241] *Id.* at App. 1148–1149.
[242] *Id.* at 1149.

~~99~~125. As a result of the improper and politically motivated investigations launched by Attorneys General Schneiderman and Healey, ExxonMobil has suffered, now suffers, and will continue to suffer violations of its rights under the First, Fourth, and Fourteenth Amendments to the United States Constitution and under Sections Eight, Nine, and Nineteen of Article One of the Texas Constitution. Attorneys General Schneiderman's and Healey's actions also violate Articles One and Six of the United States Constitution and constitute an **unlawful conspiracy and** abuse of process under common law.

~~100~~126. Acting under the laws, customs, and usages of New York and Massachusetts, Attorneys General Schneiderman and Healey have subjected ExxonMobil, and are causing ExxonMobil to be subjected, to the deprivation of rights, privileges, and immunities secured by the United States Constitution and the Texas Constitution. ExxonMobil's rights are made enforceable against Attorneys General Schneiderman and Healey, who are acting under the color of law, by Article One, Section Eight of the United States Constitution, and the Due Process Clause of Section 1 of the Fourteenth Amendment to the United States Constitution, all within the meaning and contemplation of 42 U.S.C. § 1983, and by Sections Eight, Nine, and Nineteen of Article One of the Texas Constitution.

~~101~~127. Absent relief, Attorneys General Schneiderman and Healey will continue to deprive ExxonMobil of these rights, privileges, and immunities.

~~102~~128. In addition, ExxonMobil is threatened with further imminent injury that will occur if it ~~is forced to choose between conforming its~~**continues to be targeted for expressing** constitutionally protected speech ~~to~~**that is disfavored by the**

Attorneys General ~~Schneiderman and Healey's shared political views or exercising its rights and risking sanctions and prosecution~~.

~~103~~129. The subpoena and the CID also threaten ongoing imminent injury to ExxonMobil because they subject ExxonMobil to an unreasonable search in violation of the Fourth Amendment. Complying with ~~this~~these unreasonably burdensome and unwarranted fishing expeditions would require ExxonMobil to collect, review, and produce millions more documents, and would cost millions of dollars.

~~104~~130. If ExxonMobil's request for injunctive relief is not granted, and Attorneys General Schneiderman and Healey are permitted to persist in their investigations, then ExxonMobil will suffer these imminent and irreparable harms. ExxonMobil has no adequate remedy at law for the violation of its constitutional rights.

CAUSES OF ACTION

A. First Cause of Action: Conspiracy

~~105~~131. ExxonMobil repeats and realleges paragraphs 1 through ~~104~~109 above as if fully set forth herein.

~~106~~132. The facts set forth herein demonstrate that, acting under color of state law, Attorneys General Schneiderman and Healey have agreed with each other, and with others known and unknown, to deprive ExxonMobil of rights secured by the law to all, including those guaranteed by the First, Fourth, and Fourteenth Amendments to the United States Constitution, as well as Sections Eight, Nine, and Nineteen of Article One of the Texas Constitution.

~~107~~133. In furtherance of these objectives, Attorneys General Schneiderman and Healey have, among other things, commenced pretextual

investigations of ExxonMobil, issued the unlawful subpoena and CID, and entered the common interest agreement described above at paragraphs 5262-5363. The subpoena and CIDinvestigations were issuedcommenced without having a good faith basis for conducting any investigation, and with the ulterior motive of preventingcoercing ExxonMobil from enjoying and exercising its rights protected byto adopt climate change policies favored by the Attorneys General, in violation of the First, Fourth, and Fourteenth Amendments to the United States Constitution, as well as Sections Eight, Nine, and Nineteen of Article One of the Texas Constitution.

108134. ExxonMobil has been damaged, and has been deprived of its rights under the United States and Texas Constitutions, as a proximate result of the unlawful conspiracy entered into by Attorneys General Schneiderman and Healey. The conduct of Attorneys General Schneiderman and Healey therefore violates both 42 U.S.C. § 1985 and the Texas common law.

B. Second Cause of Action: Violation of ExxonMobil's First and Fourteenth Amendment Rights

109135. ExxonMobil repeats and realleges paragraphs 1 through 104109 above as if fully set forth herein.

110136. The focus of the subpoena and the CID on one side of a policy debate in an apparent effort to silence, intimidate, and deter those possessing a particular viewpoint from participating in that debate Attorneys General's decision to impose investigative burdens on ExxonMobil over perceived differences in viewpoint on public policy contravenes, and any effort to enforce the subpoena or CIDcontinue the investigations would further contravene, the rights provided to

ExxonMobil by the First Amendment to the United States Constitution, made applicable to the State of New York and the Commonwealth of Massachusetts by the Fourteenth Amendment, and by Section Eight of Article One of the Texas Constitution.

~~111. The subpoena and the CID are impermissible viewpoint-based restrictions on speech, and they burden ExxonMobil's political speech~~**137. Impermissible viewpoint discrimination motivated the Attorneys General's deployment of state power**. Attorneys General Schneiderman and Healey ~~issued the subpoena~~**commenced their investigations of ExxonMobil and issued subpoenas** and ~~the~~**a** CID based on their disagreement with ExxonMobil regarding how the United States should respond to the risks of climate change. And even if ~~the subpoena and the CID~~**these state actions** had not been ~~issued~~**taken** for that illegal purpose, they would still violate the First Amendment, because they burden ExxonMobil's political speech without being substantially related to any compelling governmental interest.

C. Third Cause of Action: Violation of ExxonMobil's Fourth and Fourteenth Amendment Rights

~~112~~**138**. ExxonMobil repeats and realleges paragraphs 1 through ~~104~~**109** above as if fully set forth herein.

~~113~~**139**. The issuance of the subpoena and the CID contravenes, and any effort to enforce the subpoena would further contravene, the rights provided to ExxonMobil by the Fourth Amendment to the United States Constitution, made applicable to the State of New York and the Commonwealth of Massachusetts by the Fourteenth Amendment, and by Section Nine of Article One of the Texas Constitution, to be secure in its papers and effects against unreasonable searches and seizures.

~~114~~140. The ~~subpoena and CID are each~~Attorneys General's document requests amount to unreasonable searches and seizures because ~~each of them constitutes~~they constitute an abusive fishing expedition into 40 years of ExxonMobil's records, without any legitimate basis for believing that ExxonMobil violated New York or Massachusetts law. Their overbroad and irrelevant requests impose an undue burden on ExxonMobil and violate the Fourth Amendment's reasonableness requirement, which mandates that a subpoena be limited in scope, relevant in purpose, and specific in directive.

D. Fourth Cause of Action: Violation of ExxonMobil's Fourteenth Amendment Rights

~~115~~141. ExxonMobil repeats and realleges paragraphs 1 through ~~104~~109 above as if fully set forth herein.

~~116~~142. The investigations conducted by Attorneys General Schneiderman and Healey contravene the rights provided to ExxonMobil by the Fourteenth Amendment to the United States Constitution and by Section Nineteen of Article One of the Texas Constitution not to be deprived of life, liberty, or property without due process of law.

~~117~~143. The ~~subpoena and CID~~investigations deprive ExxonMobil of due process of law by violating the requirement that a prosecutor be disinterested. The statements by Attorneys General Schneiderman and Healey at the Green 20 press conference and elsewhere make clear that they are biased against ExxonMobil.

E. Fifth Cause of Action: Violation of ExxonMobil's Rights Under the Dormant Commerce Clause

~~118~~144. ExxonMobil repeats and realleges paragraphs 1 through ~~104~~109 above as if fully set forth herein.

~~119~~145. Article I, Section 8 of the United States Constitution grants Congress exclusive authority to regulate interstate commerce and thus prohibits the States from doing so. The investigations and the issuance of the subpoena and the CID ~~contravenes~~contravene, and any effort to enforce the subpoena and the CID would further contravene, the rights provided to ExxonMobil under the Dormant Commerce Clause.

~~120~~146. The ~~subpoena and the CID~~investigations effectively regulate ExxonMobil's out-of-state speech while only purporting to investigate ExxonMobil's marketing and/or sale of energy and other fossil fuel derived products to consumers in New York and Massachusetts and its marketing and/or sale of securities to investors in New York and Massachusetts.

~~121~~147. The ~~subpoena and the CID~~Attorneys General demand documents that relate to (1) statements ExxonMobil made outside New York and Massachusetts, and (2) ExxonMobil's communications with organizations residing outside New York and Massachusetts. The ~~subpoena and CID~~Attorneys General's document requests therefore have the practical effect of primarily burdening interstate commerce.

F. Sixth Cause of Action: Federal Preemption

~~122~~148. ExxonMobil repeats and realleges paragraphs 1 through ~~104~~109 above as if fully set forth herein.

~~123~~149. Article VI, Clause 2 of the United States Constitution provides that the laws of the United States "shall be the supreme law of the land." Any state law that imposes disclosure requirements inconsistent with federal law is preempted under the Supremacy Clause.

~~124~~150. Federal law requires ExxonMobil to calculate and report its proved oil and gas reserves based on "existing economic conditions, operating methods, and government regulations." This requirement reflects the SEC's reasoned judgment about how best to supply investors with information about the relative value of oil and gas companies, as well as its balancing of competing priorities, such as the agency's desire for comprehensive disclosures, that are not unduly burdensome, and which investors can easily compare. Similarly, accounting standards recognized as authoritative by the SEC require ExxonMobil to use its own assumptions about future events when determining whether assets are impaired, not the assumptions of the Attorneys General. Attorneys General Schneiderman and Healey have stated that they seek to impose liability on ExxonMobil for failing to account for what they believe will be the financial impact of as-yet-unknown "carbon dioxide emissions limits put in place to stabilize global average temperature" in estimating and reporting ExxonMobil's proven reserves and valuing its assets. The Attorneys General therefore would seek to punish ExxonMobil for complying with federal law and the accounting standards embedded therein.

~~125~~151. Even if the New York or Massachusetts Attorneys General were to seek only to layer additional disclosure requirements concerning oil and gas reserves and asset valuations beyond those imposed by the SEC, this would frustrate, and pose an obstacle to, Congress's and the SEC's efforts to create a uniform market for securities and provide consistent metrics by which investors can measure oil and gas companies on a relative basis.

~~126~~152. Because these investigations under New York and Massachusetts law create a conflict with, and pose an obstacle to, federal law, the application of New York and Massachusetts law to this case is preempted.

G. Seventh Cause of Action: Abuse of Process

~~127~~153. ExxonMobil repeats and realleges paragraphs 1 through ~~104~~109 above as if fully set forth herein.

~~128~~154. Attorneys General Schneiderman and Healey committed an abuse of process under common law by (1) issuing the subpoena and the CID to ExxonMobil without having a good faith basis for conducting an investigation; (2) having an ulterior motive for issuing and serving the subpoena and the CID, namely, an intent to prevent ExxonMobil from exercising its right to express views with which they disagree; and (3) causing injury to ExxonMobil's reputation and violating its constitutional rights.

PRAYER FOR RELIEF

WHEREFORE, ~~Plaintiff~~ExxonMobil prays that Attorneys General Schneiderman and Healey be summoned to appear and answer and that this Court award the following relief:

1. A declaratory judgment pursuant to 28 U.S.C. § 2201, declaring that ~~the subpoena and the CID~~ investigations of ExxonMobil, as conducted by Attorneys General Schneiderman and Healey, violate ExxonMobil's rights under the First, Fourth, and Fourteenth Amendments to the United States Constitution; violate ExxonMobil's rights under Sections Eight, Nine, and Nineteen of Article One of the Texas Constitution; and violate the Dormant Commerce Clause and the Supremacy Clause of the United States Constitution;

2. A declaratory judgment pursuant to 28 U.S.C. § 2201, declaring that the issuance of the subpoena and the CID constitute an abuse of process, in violation of common law;

3. A preliminary and permanent injunction ~~prohibiting enforcement of the subpoena and of the CID~~halting or appropriately limiting the investigations;

4. Such other injunctive relief to which ~~Plaintiff~~ExxonMobil is entitled; and

5. All costs of court together with any and all such other and further relief as this Court may deem proper.

Dated: October 17, 2016

EXXON MOBIL CORPORATION

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Dated: January 12, 2018

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