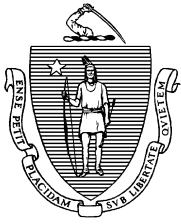


Senate, No. 2531

The Commonwealth of Massachusetts



IN THE YEAR OF TWO THOUSAND AND EIGHT

AN ACT ESTABLISHING THE GLOBAL WARMING SOLUTIONS ACT

*Be it enacted by the Senate and House of Representatives in General Court assembled,
And by the authority of the same, as follows:*

1 SECTION 1. Section 19 of chapter 6A of the General Laws, as appearing in the 2006
2 Official Edition, is hereby amended by striking out subsection (f) and inserting in place thereof
3 the following 2 subsections:-

4 (f) The secretary shall collaborate with other state agencies to reduce greenhouse gas
5 emissions to achieve the greenhouse gas emissions limits established in chapter 21N.

6 (g) Nothing in this chapter shall be construed to confer any powers or impose any duties
7 upon the secretary with respect to the foregoing agencies and authorities except as expressly
8 provided by law.

9 SECTION 2. Section 1 of chapter 16 of the General Laws, as so appearing, is hereby
10 amended by striking out subsection (d) and inserting in place thereof the following 2
11 subsections:-

12 (d) The commissioner shall collaborate with other state agencies to reduce greenhouse
13 gas emissions to the limits established in chapter 21N.

14 (e) The commissioner may promulgate rules and regulations to effectuate the purposes
15 of this chapter.

16 SECTION 3. The first paragraph of section 2 of chapter 21A of the General Laws, as so
17 appearing, is hereby amended by adding the following clause:-

18 (30) consistent with chapter 21N, oversee state agency efforts to address and diminish
19 the impacts of global warming by coordinating state agency actions to achieve the greenhouse
20 gas emissions limits established in chapter 21N.

21 SECTION 4. Said chapter 21A is hereby further amended by inserting after section 2
22 the following section:-

23 Section 2A. Subject to appropriation, the secretary of energy and environmental affairs,
24 in consultation with the secretary of housing and economic development, shall create and
25 administer programs and incentives to foster manufacturing, development and research in the
26 renewable energy and energy efficiency sectors. At a minimum, the secretary of energy and
27 environmental affairs shall develop, subject to appropriation, seed grant partnerships for
28 research and venture investment programs, which shall foster public/private partnerships
29 between the state and the venture community. This program shall provide grants to qualified
30 university researchers and validation stage ventures, expand the field of energy-focused
31 entrepreneurs and spark the cooperative development of commercial clean energy companies
32 through increased venture investment. The program shall include but not be limited to a focus of
33 providing grants to university energy research projects and early-stage energy ventures seeking

34 validation of their science and intellectual property, and the establishment of an Energy
35 Entrepreneur program.

36 SECTION 5. Section 8 of said chapter 21A, as appearing in the 2006 Official Edition, is
37 hereby amended by inserting after the second paragraph the following paragraph:-

38 The department of environmental protection shall assist in the implementation of chapter
39 21N.

40 SECTION 6. Section 16 of said chapter 21A, as so appearing, is hereby amended by
41 adding the following paragraph:-

42 Any person who fails to comply with or otherwise violates chapter 21N or any
43 regulation adopted thereunder shall be liable for a civil administrative penalty not to exceed
44 \$25,000 for each day the violation continues.

45 SECTION 7. The General Laws are hereby amended by inserting after chapter 21M the
46 following chapter:-

47 CHAPTER 21N.

48 GLOBAL WARMING SOLUTIONS ACT.

49 Section 1. For the purposes of this chapter, the following terms shall have the following
50 meanings:

51 “Allowance”, an authorization to emit, during a specified year, up to 1 ton of carbon
52 dioxide equivalent.

53 “Alternative compliance mechanism”, an action undertaken by a greenhouse gas
54 emissions source that achieves the equivalent reduction of greenhouse gas emissions over the
55 same time period as a direct emissions reduction, that is approved by the department, and that is
56 real, permanent, quantifiable, verifiable and enforceable.

57 “Carbon dioxide equivalent”, the amount of carbon dioxide by weight that would
58 produce the same global warming impact as a given weight of another greenhouse gas, based on
59 the best available science, including from the Intergovernmental Panel on Climate Change.

60 “Department”, the department of environmental protection.

61 "Direct emissions", emissions from sources that are owned or operated, in whole or in
62 part, by an entity or facility including, but not limited to, emissions from factory stacks,
63 manufacturing processes and vents, and company-owned or company-leased motor vehicles.

64 “Direct emissions reduction”, a greenhouse gas emissions reduction action made by a
65 greenhouse gas emissions source at that source.

66 “Emission”, emission of greenhouse gas into the air.

67 “Emissions reduction measure”, programs, measures, standards and alternative
68 compliance mechanisms authorized pursuant to this chapter, applicable to sources or categories
69 of sources, that are designed to reduce emissions of greenhouse gases.

70 "Entity", a person as defined in section 16 of chapter 21A that owns or operates, in
71 whole or in part, a source of greenhouse gas emissions from a generator of electricity or a
72 commercial or industrial site, which source may include, but not be limited to, a transportation
73 fleet.

74 “Executive office”, the executive office of energy and environmental affairs.

75 "Facility", a building, structure or installation located on contiguous or adjacent
76 properties of an entity.

77 "Greenhouse gas", any chemical or physical substance that is emitted into the air and
78 that the department may reasonably anticipate will cause or contribute to climate change

79 including, but not limited to, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons,
80 perfluorocarbons and sulfur hexafluoride.

81 “Greenhouse gas emissions limit”, an authorization, during a specified year, to emit up
82 to a level of greenhouse gases specified by the secretary, expressed in tons of carbon dioxide
83 equivalents.

84 “Greenhouse gas emissions source”, any source, or category of sources, of greenhouse
85 gas emissions with emissions that are at a level of significance, as determined by the executive
86 office, that its participation in the program established under this chapter will enable the
87 executive office to effectively reduce greenhouse gas emissions and monitor compliance with
88 the statewide greenhouse gas emissions limit.

89 "Indirect emissions", emissions associated with the consumption of purchased
90 electricity, steam and heating or cooling by an entity or facility.

91 “Leakage”, the offset of a reduction in emissions of greenhouse gases within the
92 commonwealth by an increase in emissions of greenhouse gases outside the commonwealth.

93 “Market-based compliance mechanism”, (i) a system of market-based declining annual
94 aggregate emissions limitations for sources or categories of sources that emit greenhouse gases;
95 or (ii) greenhouse gas emissions exchanges, banking, credits and other transactions, governed
96 by rules and protocols established by the executive office or the regional greenhouse gas
97 initiative, that result in the same greenhouse gas emissions reduction, over the same time period,
98 as direct compliance with a greenhouse gas emissions limit or emissions reduction measure
99 adopted by executive office pursuant to this chapter.

100 “Secretary”, the secretary of energy and environmental affairs.

101 “Statewide greenhouse gas emissions”, the total annual emissions of greenhouse gases in
102 the commonwealth, including all emissions of greenhouse gases from the generation of
103 electricity delivered to and consumed in the commonwealth, accounting for transmission and
104 distribution line losses, whether the electricity is generated in the commonwealth or imported,
105 vehicle emissions and heating and cooling of buildings, expressed in tons of carbon dioxide
106 equivalents.

107 “Statewide greenhouse gas emissions limit”, the maximum allowable level of statewide
108 greenhouse gas emissions in a given year, as determined by the executive office pursuant to this
109 chapter.

110 Section 2. (a) The department shall monitor and regulate emissions of greenhouse gases
111 with the goal of reducing those emissions.

112 (b) The department shall adopt regulations to require the reporting and verification of
113 statewide greenhouse gas emissions and to monitor and enforce compliance with this program.

114 The regulations shall:

115 (1) establish a regional greenhouse gas registry and reporting system for greenhouse gas
116 emission sources; provided, however, that in establishing the greenhouse gas registry and
117 reporting system, the department may collaborate with other states or a regional consortium;

118 (2) require the owner or operator of any facility that is required to report air emissions
119 data to the department pursuant to Title V of the federal Clean Air Act and that has stationary
120 emissions sources that emit greenhouse gases shall report annually to the regional registry direct
121 stack emissions of greenhouse gases from such sources;

122 (3) require the owner or operator of any facility that has stationary emissions sources
123 that emit greenhouse gases in excess of 5,000 tons of greenhouse gases per year in carbon

124 dioxide equivalents shall report annually to the regional registry direct emissions of greenhouse
125 gases from such sources. The department shall develop a simplified estimation form to assist
126 facilities in determining who must report emissions. The secretary shall consider, on an annual
127 basis, requiring the expansion of reporting to the regional greenhouse gas registry;

128 (4) provide for the voluntary reporting of emissions of greenhouse gases to the regional
129 greenhouse gas registry by entities and facilities that are not required to submit information
130 pursuant to clauses (2) and (3) of this subsection but which do so on a voluntary basis; provided,
131 however, that the greenhouse gas emissions reported shall be of a type and format that the
132 regional greenhouse gas registry can accommodate;

133 (5) account for greenhouse gas emissions from all electricity consumed in the
134 commonwealth, including transmission and distribution line losses from electricity generated
135 within the commonwealth or imported from outside the commonwealth; provided, however, that
136 this requirement shall apply to all retail sellers of electricity, including electric utilities,
137 municipal electric departments and municipal light boards as defined in section 1 of chapter
138 164A;

139 (6) ensure rigorous and consistent accounting of emissions and provide reporting tools
140 and formats to ensure collection of necessary data; and

141 (7) ensure that greenhouse gas emissions sources maintain comprehensive records of all
142 reported greenhouse gas emissions.

143 (c) In furtherance of this section, the department shall:

144 (1) consult with the secretary on periodic review and updates of emission reporting
145 requirements, as necessary;

146 (2) review existing and proposed international, federal and state greenhouse gas
147 emissions reporting programs and make reasonable efforts to promote consistency among the
148 programs established pursuant to this chapter and other programs and to streamline reporting
149 requirements on greenhouse gas emissions sources; and

150 (3) publish a state greenhouse gas emissions inventory every 3 years that includes
151 comprehensive estimates of the quantity of greenhouse gas emissions in the state for the last 3
152 years in which data is available.

153 Section 3. Emissions levels and limits associated with the electric sector shall be
154 established by the executive office and the department based on consumption and purchases of
155 electricity from the regional electric grid, taking into account the Regional Greenhouse Gas
156 Initiative and the renewable portfolio standard.

157 Section 4. (a) The secretary shall adopt a plan for achieving a 2020 statewide
158 greenhouse gas emissions limit. The secretary shall consult with all state agencies and regional
159 authorities and agreements with jurisdiction over sources of greenhouse gases on all elements of
160 the statewide greenhouse gas emissions limit and plan that pertain to energy related matters
161 including, but not limited to, electrical generation, load based-standards or requirements, the
162 provision of reliable and affordable electrical service, and statewide fuel supplies, vehicle
163 emissions and heating and cooling of buildings to ensure the greenhouse gas emissions
164 reduction activities to be adopted and implemented by the secretary are complementary, non-
165 duplicative, and can be implemented in an efficient and cost-effective manner

166 (b) The secretary shall analyze the feasibility of measures to meet the 2020 statewide
167 greenhouse gas emissions limit. Such measures shall include, but not be limited to, direct
168 emissions reduction measures, alternative compliance mechanisms, market-based compliance

169 mechanisms and potential monetary and nonmonetary incentives for sources and categories of
170 sources that the secretary finds are necessary or desirable to facilitate the achievement of
171 reductions of statewide greenhouse gas emissions limits.

172 (c) The secretary shall consider all relevant information pertaining to greenhouse gas
173 emissions reduction programs in California, Canada, the European Union and any other states,
174 localities and nations.

175 (d) The secretary shall evaluate the total potential costs and total potential economic and
176 noneconomic benefits of various reduction measures to the economy, the environment and the
177 public health, using the best available economic models, emissions estimation techniques and
178 other scientific methods.

179 (e) The secretary shall take into account the relative contribution of each source or
180 source category to statewide greenhouse gas emissions and shall recommend a *de minimis*
181 threshold of greenhouse gas emissions below which emissions reduction requirements shall not
182 apply.

183 (f) The secretary shall identify opportunities for emissions reduction measures from all
184 verifiable and enforceable voluntary actions.

185 (g) The secretary shall conduct public hearings to provide interested parties with an
186 opportunity to comment on a proposed implementing plan. The secretary shall conduct a portion
187 of the workshops in regions that have the most significant exposure to air pollutants including,
188 but not limited to, communities with minority populations, communities with low-income
189 populations or both.

190 (h) The secretary shall update its plan for achieving the maximum technologically
191 feasible reductions of greenhouse gas emissions at least once every 5 years, including the plans
192 to implement the 2030, 2040 and 2050 statewide emissions limits.

193 Section 5. (a) The executive office shall monitor the implementation of regulations
194 relative to global warming, and shall publish a report and recommendations regarding such
195 implementation. The report shall include a discussion of the following:

196 (1) whether regulations or other measures undertaken, including distribution of
197 emissions allowances, are equitable and minimize costs and maximize the total benefits to the
198 commonwealth, and encourage early action to reduce greenhouse gas emissions;

199 (2) whether activities undertaken to comply with state regulations and efforts
200 disproportionately impact low-income communities;

201 (3) whether entities that have voluntarily reduced their greenhouse gas emissions prior to
202 the implementation of this section receive appropriate credit for early voluntary reductions;

203 (4) whether activities undertaken pursuant to the regulations complement, and do not
204 interfere with, efforts to achieve and maintain federal and state ambient air quality standards and
205 reduce toxic air contaminant emissions;

206 (5) consider overall societal benefits, including reductions in other air pollutants,
207 diversification of energy sources, and other benefits to the economy, environment, and public
208 health;

209 (6) whether state actions minimize the administrative burden of implementing and
210 complying with these regulations;

211 (7) whether state actions minimize leakage;

212 (8) consider the significance of the contribution of each source or category of sources to
213 statewide emissions of greenhouse gases;

214 (9) whether greenhouse gas emission reductions achieved are real, permanent,
215 quantifiable, verifiable, and enforceable; and

216 (10) recommendations for future policy action, including legislation or other action.

217 (b) The report shall be updated and re-issued every 5 years. The secretary shall file the
218 report with the clerk of the house of representatives, the clerk of the senate, the house and senate
219 committee on ways and means, the joint committee on telecommunications, utilities and energy
220 and the joint committee on the environment, natural resources and agriculture.

221 Section 6. In developing its plan for achieving the statewide greenhouse gas emissions
222 limits, the commonwealth and its agencies shall promulgate regulations that reduce energy use,
223 increase efficiency and encourage renewable sources of energy in the sectors of energy
224 generation, buildings and transportation.

225 Section 7. (a) The secretary, in consultation with fiscal agencies of the commonwealth,
226 may consider the use of market-based compliance mechanisms to address global warming
227 concerns.

228 (b) Prior to the inclusion of any market-based compliance mechanism, to the extent
229 feasible and in furtherance of achieving the statewide greenhouse gas emissions limit, the
230 secretary shall:

231 (1) consider the potential for direct, indirect and cumulative emission impacts from these
232 mechanisms, including localized impacts in communities that are already adversely
233 impacted by air pollution;

234 (2) design any market-based compliance mechanism to prevent any increase in the
235 emissions of toxic air contaminants or criteria air pollutants, with particular attention
236 paid to emissions of nitrous oxide, sulfur dioxide and mercury; and

237 (3) maximize additional environmental and economic benefits, as appropriate.

238 (c) The secretary may adopt regulations governing how market-based compliance
239 mechanisms may be used by regulated entities subject to greenhouse gas emissions limits and
240 mandatory emission reporting requirements to achieve compliance with their greenhouse gas
241 emissions limits.

242 (d) The executive office and the department may work with states participating in the
243 Regional Greenhouse Gas Initiative, and other interested states and Canadian provinces to
244 develop a plan to expand market-based compliance mechanisms such as the Regional
245 Greenhouse Gas Initiative to other sources and sectors necessary or desirable to facilitate the
246 achievement of the greenhouse gas emissions limits.

247 (e) The executive office shall monitor compliance with and enforce any rule, regulation,
248 order, emission limitation, emissions reduction measure or market-based compliance
249 mechanism adopted by the executive office or a department pursuant to this chapter. The
250 department shall impose a civil administrative penalty consistent with section 16 of chapter 21A
251 for a violation, by either an incorporated entity or an individual, of a rule, regulation, order,
252 emissions limitation, emissions reduction measure or other measure adopted by the executive
253 office pursuant to this chapter.

254 Section 8. The secretary shall convene an advisory committee, of at least 5 members, to
255 advise him in overseeing all greenhouse emissions reduction. The advisory committee shall
256 consist of representatives from communities with the most significant exposure to air pollution

257 including, but not limited to, communities with minority populations or low-income populations
258 or both, representatives of organizations with expertise in environmental protection,
259 representatives of organizations with expertise in energy efficiency and renewable energy and
260 representatives of organizations doing business in the commonwealth.

261 Section 9. The secretary shall appoint an economic and technology advancement
262 advisory committee to advise the executive office on activities to facilitate investment in and
263 implementation of technological research and development opportunities including, but not
264 limited to, identifying new technologies, research, demonstration projects and funding
265 opportunities, developing state, national and international partnerships and technology transfer
266 opportunities and identifying and assessing research and advanced technology investment and
267 incentive opportunities to assist in the reduction of greenhouse gas emissions. The committee
268 may also advise the executive office on state, regional, national, and international economic and
269 technological developments related to greenhouse gas emission reductions.

270 Section 10. Nothing in this chapter shall affect the authority of the commonwealth
271 utilities commission.

272 Nothing in this chapter shall affect the obligation of an electrical utility to provide
273 customers with safe and reliable electric service.

274 Section 11. No permit shall be granted for the construction of a new power plant or
275 expansion of any existing power plant where the power plant would have an emissions rate of
276 more than 1,100 pounds of carbon dioxide per megawatt-hour. In addition, technologies for
277 electric generation that qualify for energy portfolio standards shall have a net emissions rate not
278 to exceed the emissions rate of a new natural gas combined cycle power plant, inclusive of all
279 emissions related to thermal delivery, combustion, gasification, fuel processing and

280 sequestration, whether or not such activities occur at the generating source or at another
281 location.

282 Section 12. (a) For the purposes of this section, the following terms shall have the
283 following meanings unless the context clearly requires otherwise:

284 “Adaptation”, programs, projects and policies designed to strengthen, protect and restore
285 habitat and improve the ability of plant and animal species and natural communities to adapt to
286 and survive to climate change.

287 “Board”, the climate change advisory board established in subsection (c).

288 “Built environment”, buildings, roads, fixtures, parks and all other structures and
289 improvements, including all buildings, spaces and products that are created or modified by
290 people.

291 “Habitat”, a natural area which, due to its physical or biological features, provides
292 critical elements for the growth and survival of plants or animals including but not limited to,
293 natural areas for breeding, feeding, resting and migrating; provided, however that physical or
294 biological features of habitat include, but are not limited to, structure and composition of
295 vegetation; faunal community; soils; water chemistry and quality; and geologic, hydrologic, and
296 microclimatic factors.

297 (b) (1) The secretary, in consultation with the climate change advisory board established
298 pursuant to subsection (c), shall promulgate a written climate change adaptation plan, subject to
299 periodic revision.

300 (2) The plan shall include a comprehensive assessment of the statewide impacts of
301 climate change on terrestrial, freshwater, estuarine, coastal and marine habitat and the built
302 environment.

303 (3) The plan shall be used to develop and implement a statewide climate change
304 adaptation program. The program shall ensure that state agencies integrate adaptation into
305 agency planning, projects, programs and policies. The plan shall consist of the following
306 components: (i) research and assessment to assess adaptation projects and programs to enable
307 animals, plants and natural communities and the built environment to adapt to climate change
308 based on the best available science and data; (ii) prioritization to identify and protect animals,
309 plants, natural communities and elements of the built environment most adversely affected by
310 climate change based on the best available science and data; (iii) program and policy
311 development to integrate the plan into state agency programs and policies; (iv) budget to review
312 existing public funding sources and develop budget recommendations; and (v) implementation
313 to implement the plan and assess the effectiveness of the plan once implemented.

314 (4) The executive office of energy and environmental affairs shall provide opportunities
315 for public input during the development and implementation of the plan.

316 (c) The climate change adaptation advisory board to assist the secretary in developing
317 and implementing the plan shall include the secretary, or his designee, who shall serve as chair;
318 the commissioner of energy resources, or his designee; the commissioner of fish and game, or
319 his designee; the commissioner of conservation and recreation, or his designee; the
320 commissioner of environmental protection, or his designee and the commissioner of agricultural
321 resources, or his designee; and 7 persons to be appointed by the governor, 1 of whom shall be a
322 representative of the Massachusetts Municipal Association; and 1 of whom shall be a
323 representative of a regional planning agency. For the remaining 5 persons to be appointed by
324 the governor, each of the following organizations will each nominate 1 candidate and submit the
325 name of the candidate to the secretary: the Nature Conservancy, Massachusetts Audubon

326 Society, the Trustees of Reservations, Environmental League of Massachusetts, Appalachian
327 Mountain Club, Trust for Public Land, the Union of Concerned Scientists and Environment
328 Northeast. Of the 8 names received by the secretary, the secretary shall select 5 names and
329 submit those names to the governor so that the governor may appoint them to the advisory
330 board.

331 SECTION 8. Chapter 23 of the General Laws is hereby amended by inserting after section
332 3A the following section:-

333 Section 3B. Subject to appropriation, the secretary of labor and workforce development,
334 in consultation with the secretary of energy and environmental affairs, shall establish and
335 administer programs and incentives to foster manufacturing and development in the renewable
336 energy and energy efficient sectors. At a minimum, the secretary of labor and workforce
337 development shall develop, subject to appropriation, energy efficiency and renewable energy
338 workforce development and training programs to increase the number of trained skilled workers
339 in the economic sectors of emerging clean energy, renewable energy, energy efficiency and
340 demand resources. The program shall develop a plan to address clean energy labor demands.
341 The program shall provide training for low-income and disadvantaged adults. The program
342 shall be designed to promote growth of the clean energy economy by identifying and
343 maintaining well-trained skilled workers and addressing emerging skills gaps in the clean
344 energy industry. The program shall include, but not be limited to, providing grants to state
345 universities, state colleges, community colleges, vocational and technical schools and organized
346 labor for educational and certification programs targeted at both engineering and technical
347 needs in the cluster and serving end-user needs.

348 SECTION 9. Chapter 29 of the General Laws, as so appearing, is hereby amended by
349 inserting after section 2XXX the following section:-

350 Section 2YYY. There shall be established and set up on the books of the
351 commonwealth a separate fund to be known as the Green Building Revolving Loan Fund.
352 There shall be credited to the fund all revenues or other financing sources directed to it by
353 appropriation, any income derived from the investing of amounts credited to the fund and the
354 monies from the repayment of loans from the fund. Monies credited to the fund may be
355 expended by the executive office of energy and environmental affairs, without further
356 appropriation, for loans to provide low-interest financing for new construction or major
357 renovation projects that exceed the energy efficiency requirements of the state building code by
358 30 per cent.

359 SECTION 10. Section 61 of chapter 30 of the General Laws is hereby amended by
360 inserting after the first paragraph, as appearing in the 2006 Official Edition, the following
361 paragraph:-

362 In considering and issuing permits, licenses and other administrative approvals and
363 decisions, the respective agency, department, board commission or authority shall consider
364 reasonably foreseeable climate change impacts such as additional greenhouse gas emissions,
365 and effects such as predicted sea level rise, shall be taken into consideration.

366 SECTION 11. Section 142K of chapter 111 of the General Laws, as so appearing, is
367 hereby amended by striking out subsection (h) and inserting in place thereof the following 2
368 subsections:-

369 (h) The department of environmental protection shall adopt a low carbon fuel standard
370 for transportation fuels. The standard shall apply to all providers of transportation which, for the

371 purposes of this subsection shall include refiners, blenders, producers and importers. The
372 standard shall be measured on a full fuels cycle basis and may be met through market-based
373 methods by which providers exceeding the performance required by a standard shall receive
374 credits that may be applied to future obligations, or traded to providers not meeting the standard.
375 The process for establishing the standard shall be as follows:

376 (1) The department of environmental protection, in consultation with the department and
377 the executive office of transportation, shall adopt regulations establishing a low carbon fuel
378 standard for all motor vehicle fuels sold in the commonwealth. Such regulations shall establish
379 a declining standard for greenhouse gas emissions measured in CO₂-equivalent gram per unit of
380 fuel energy sold, sufficient to achieve a 10 per cent reduction in the carbon content of all
381 passenger vehicle fuels sold in the commonwealth by 2020.

382 (2) The department of environmental protection and the executive office of
383 transportation shall examine the regulations and implementation of a low carbon fuel standard
384 in California and other states and consider ways to coordinate and issue public findings on both
385 such matters, and shall, if applicable, use the life-cycle analysis methods employed by the
386 California Air Resources Board to determine the carbon intensity of fuel.

387 (3) The department of environmental protection and the executive office of
388 transportation shall examine the possibility of a regional approach to implementing the low
389 carbon fuel standard and issue public findings on such matter.

390 (i) The responsibilities hereunder shall be in addition to all other responsibilities
391 imposed by any other general or special law or rule or regulation.

392 SECTION 12. The department of environmental protection shall adopt regulations
393 pursuant to section 2 of chapter 21N of the General Laws not later than January 1, 2009.

394 SECTION 13. The first reports required to be filed pursuant to clauses (2) and (3) of
395 subsection (b) of section 2 of chapter 21N of the General Laws shall be filed not later than April
396 15, 2009.

397 SECTION 14. The department of environmental protection shall provide for the
398 voluntary reporting of greenhouse gas emissions to the regional greenhouse gas registry
399 pursuant to clause (4) of subsection (b) of section 2 of chapter 21N of the General laws not later
400 than July 1, 2009.

401 SECTION 15. The department shall account for greenhouse gas emissions from
402 electricity consumed in the commonwealth pursuant to clause (5) of subsection (b) of section 2
403 of chapter 21N of the General Laws not later than July 1, 2009.

404 SECTION 16. The first statewide greenhouse gas emissions inventory under clause (3)
405 of subsection (c) of section 2 of chapter 21N of the General Laws shall be completed not later
406 than December 31, 2010.

407 SECTION 17. (a) Not later than July 1, 2009, the department of environmental
408 protection shall, after notice and opportunity for all interested parties to comment at a public
409 hearing, determine what the statewide greenhouse gas emissions level was in 1990 and may
410 reasonably project what that emissions level will be in 2020 if no measures are imposed to
411 lower emissions other than those formally adopted and implemented as of January 1, 2009.
412 This projection shall be referred to as the projected 2020 level.

413 (b) The secretary of energy and environmental affairs, in consultation with the
414 department, shall adopt statewide greenhouse gas emissions limits according to the following:-

415 (1) The 2020 statewide greenhouse gas emissions limit shall be 20 per cent below the
416 1990 level; provided, however, that not later than January 1, 2010, the secretary shall adopt a
417 plan to achieve that level in accordance with section 4 of chapter 21N of the General Laws.

418 (2) The secretary shall adopt interim 2030 and 2040 statewide greenhouse gas emissions
419 limits accompanied by plans to achieve those limits in accordance with said section 4 of said
420 chapter 21N. The 2030 and 2040 statewide green house gas emissions limits shall maximize the
421 ability of the state to meet the 2050 statewide emissions limit.

422 (3) The 2050 statewide greenhouse gas emissions limit shall be 80 per cent below the
423 1990 level. The executive office of energy and environmental affairs shall adopt incremental
424 reduction targets for the years 2010 to 2019, inclusive, and 2021 to 2050, inclusive, that shall
425 maximize the ability of the state to meet the statewide emissions limits.

426 (b) In furtherance of achieving the statewide greenhouse gas emissions limit by January
427 1, 2011, the department shall promulgate regulations establishing a desired level of declining
428 annual aggregate emission limits for sources or categories of sources that emit greenhouse gas
429 emissions, applicable from January 1, 2012, to December 31, 2020, inclusive, that are sufficient
430 to meet the targets established in this section.

431 SECTION 18. The secretary of energy and environmental affairs shall adopt a plan for
432 achieving a 2020 statewide greenhouse gas emissions limit pursuant to section 4 of chapter 21N
433 of the General Laws not later than January 1, 2010.

434 SECTION 19. The executive office of energy and environmental affairs shall publish its
435 first report pursuant to subsection (a) of section 5 of chapter 21N of the General Laws not later
436 than January 1, 2014.

437 SECTION 20. The executive office of energy and environmental affairs shall complete
438 the climate change adaptation plan pursuant to section 12 of chapter 21N of the General Laws
439 not later than 18 months after the effective date of this act.

440 SECTION 21. The low carbon fuel standard for transportation fuels to be adopted
441 pursuant to subsection (h) of section 142K of chapter 111 of the General Laws shall be
442 completed not later than June 30, 2009; provided, however, that regulations establishing a low
443 carbon fuel standard for all motor vehicle fuels pursuant to said subsection (h) shall be adopted
444 not later than January 1, 2009.

445 SECTION 22. Nothing in this act shall restrict the executive office from adopting
446 greenhouse gas emissions limits or emissions reduction measures before January 1, 2010,
447 imposing those limits or measures before January 1, 2012 or providing early reduction credit
448 where appropriate, nor shall anything in this act prevent the imposition of more stringent limits
449 on emissions.