Regional Greenhouse Gas Initiative Stakeholder Meetings – April 5 & April 10, 2007
Stakeholder Comments Received

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Stakeholder Comments

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April 11, 2007

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Subject: AES Comments to Massachusetts on State Implementation of RGGI

We appreciate the opportunity to provide comments to Massachusetts as it develops its rule to implement RGGI. We are very concerned with the RGGI pre-proposal that was released by New York, and encourage Massachusetts to reject its proposed 100% auction for the reasons outlined herein. New York's pre-proposal represents a complete departure from the claimed desire to achieve balance among environmental, energy and economic development needs and does not represent a workable template for a national program.

We therefore encourage Massachusetts to develop program details that provide for a fair allocation of allowances to generators and address other shortcomings of New York's pre-proposal.

If you have any questions please contact me at 607/272-5970, ext. 1116.

Sincerely,

Chris Wentlent, Director
Regulatory Affairs

AES Comments to Massachusetts on State Implementation of RGGI
4/11/ 2007

AES Overview

AES is one of the world's largest global power companies, with operations in 26 countries on five continents. We have 14 regulated utilities and 122 generation facilities worldwide, including plants in four of the RGGI states.

We were one of the first generating companies in the world to voluntarily offset carbon dioxide emissions through forest sequestration projects, have significant holdings in wind farms across the globe, have significant businesses in the creation of greenhouse gas offsets, and over the next 5 -10 years plan to invest $10 billion in CO2 offset, renewable energy, ethanol, solar power, coal-to-liquid technology, and carbon capture projects.

More recently, in New York, we have announced plans to research and demonstrate improved carbon dioxide capture technologies with Praxair for both new and existing electric generation facilities. Once technically and economically feasible, such technologies would be capable of being retrofitted on both new and existing boilers across the country. To date, however, carbon capture and sequestration remain in the development phase. No viable CO2 capture and sequestration technology alternative currently exists.

In a recent January 6, 2007 NY Times interview, our CEO Paul Hanrahan, provided an overview of our climate change activities and specifically identified that in the interim, CO2 emissions could be reduced cheaply through the global utilization of offsets.

Since CO2 is a global challenge, AES believes that the best approach is a national CO2 legislative solution. However, in the interim, we will support a well-structured regional greenhouse gas initiative that properly balances environmental, economic development and energy needs as was promised in the RGGI Action Plan.

Maryland RGGI Study

The Maryland Department of the Environment contracted with the University of Maryland through its Center for Integrative Environmental Research, in collaboration with Resources for the Future, The Johns Hopkins University and Towson University, to conduct an independent study of the economic and energy impacts related to Maryland's potential participation in the Regional Greenhouse Gas Initiative (RGGI). The results are contained in Economic and Energy Impacts from Maryland's Potential Participation in the Regional Greenhouse Gas Initiative, which was released on February 1, 2007 (the "Maryland Report" or the "Report"). The Report contains up do date, valuable information which should help inform Massachusetts on issues associated with RGGI implementation. Included in the Report are the following findings:

1. Generators with long-term contracts for their respective output without a mechanism for CO2 cost recovery will suffer inordinate harm under RGGI;

2. The cost of base load power will increase and merchant generators will experience significant declines in profitability;

3. Substantial leakage will occur as electric generation shifts to higher-emitting non-participating states as a result of RGGI.

Overview of Key Issues

We have the following concerns with respect to the concept of auctioning 100% of allowances:

1. The shift to a 100% auction mechanism without fully understanding the market, economic, reliability, and investment implications including the immediate financial distress for contracted facilities without a CO2 pass-through in their existing long term contracts.
2. A 100% auction will not promote investment in new and existing infrastructure and will reduce the term of energy transactions.
3. Program design places the highest level of risk on both consumers and suppliers.
4. Program design is not "expandable and flexible" and, thus, will not serve as the template for a national program.

AES is concerned with so drastic a deviation from the RGGI Final Model Rule recommendation which provided for at least a 25% auction, with the remaining allowances to be allocated to generation sources, to an immediate 100% auction mechanism with no allocation to generation sources**.**

The broad-brush rationale used to support this change, "that all generators will receive "windfall" profits if allocated allowances" is flawed. Even highly efficient natural gas fired facilities that are able to recover most of the RGGI allowance costs within their bids will face cash and collateral issues that will limit their ability to enter into longer term transactions. Moreover, oil and coal fired generating capacity will outright face substantial economic harm, not profit windfalls, if a 100% auction is utilized. At a time when economic development and infrastructure improvements are critical priorities, a program design that could negatively impact current existing infrastructure needlessly presents significant risks.

100% Auction Impact – Impact on Different Commercial Arrangements & Fuel Types

Various policy statements prepared by state agencies and boards have identified fuel diversity as an issue of concern that should be addressed through effective regulations that encourage diversity. **As stated in the "Regional System Plan 2005" approved by ISO New England, the diversity of fuels used to generate electricity in New England is a major issue of concern.** The short-term issues relate to a large portion of the gas-fired generating units' lacking either firm gas contracts or dual-fuel capability. The longer-term issues relate to the high and increasing reliance on natural gas for producing electric power in New England and neighboring regions, suggesting the need for greater electric supply-side fuel diversity in the region."

The Maryland modeling clearly demonstrated that even allocating 75 percent of Maryland's RGGI CO2 allowance budget to existing generators still resulted in substantial increased compliance costs, reduced gross margins, eroding facility profitability (**not windfall profits**), and increases in the marginal cost of in-region electric supplies. The Report's conclusions cannot be assumed to apply to the much more severe proposal that sources receive no direct allocation, but have to attempt to obtain all of their allowances in an auction. The impact on Maryland's merchant plants is projected to be significant (a decrease in annual profit of 3% in 2015, worsening to nearly an 8% decrease in 2025 – the impact on coal-fired merchant plants is projected to be much more severe than this range, as discussed below**). The magnitude of the financial impact with a 100% auction was not modeled.** Based on the reported results of a 25% auction, it is apparent that adverse financial impacts will be magnified by a 100% auction.

As noted in the Maryland Report, this finding regarding generator impact is at variance with earlier work by Palmer et al (2006) which suggested that roughly 30 percent of the allowances would need to be given away to compensate the industry as a whole in the Classic RGGI region for all facilities' losses. ***This is a critical finding of the detailed Maryland Report, and clearly refutes the contention that allocating allowances to sources will provide them with windfall profits*** The fact that this assumption is not valid for Maryland (and, by extrapolation, to dual fuel and coal-fired generators in other states) should clearly point to the conclusion that a 100% auction concept being contemplated in Massachusetts and other states is based on inaccurate assumptions and, at a minimum, should be reconsidered. The original Model Rule struck a proper balance of 25% auction, and 75% allocation to source. This specific issue was debated throughout the three year RGGI regional process. **A dramatic shift to 100% auction can not be done in a vacuum but rather would require other components of the RGGI program to be modified to avoid substantial economic risks to consumers and suppliers.**

Long-Term Contracted Facilities

The RGGI region has a number of plants with long term power contracts that do not contain a CO2 cost pass-through. Failure to provide a mechanism for these facilities to recoup their CO_2 costs is likely to cause reduced unit reliability, force default under the terms of the contract and an associated change of owner or possibly unit shutdown. Even though showing significant impact on coal-fired plants, the conclusions in the Maryland modeling report (as well as the RGGI IPM modeling) cannot be applied to contracted plants and do not address impacts to generators that cannot seek to recover allowance costs in the wholesale market. Before any decisions can be made as to the program's impact on plants across the state, or on Massachusetts' allowance allocation methodology, the state must assess this key distinction between merchant and contract plants. The Maryland Report recognizes that this distinction exists, through the statement on page 59 that, "… utilities that have long-term energy contracts for power, from sources with high CO2 emissions, may have to pay more for the emissions and suffer from reduced competitiveness in energy markets," but does not further evaluate or model its implications.

Without properly assessing this critical difference between contracted and merchant plants, implementation of RGGI would have the unintended and paradoxical consequence of causing significant financial harm to some of the most modern, environmentally efficient clean facilities in the RGGI region. Many of these facilities operate with natural gas as its primary fuel, state-of-the-art control technologies and provide cogeneration capability to a neighboring business.

Merchant Coal-Fired Facility Impact

Gas plants generally set the marginal price of power, and will for the most part recoup the cost of CO2 allowances in the price they get for their power A combined cycle gas-fired plant emits CO2/MWH on roughly a 1:2 ratio as compared to coal units. Accordingly, a coal fired unit will recoup approximately 40% of its CO2 cost from the market. The remainder will be an immediate financial consequence to the facility.

Assuming a CO2 allowance price of $5, this equates to a market recovery of roughly $2/MWH for gas-fired generation that will be included in their bid price. Therefore, with these plants setting the marginal price of electricity a majority of the time, all merchant generators (including coal-fired) will get a $2/MWH incremental price for their power. The Maryland Report projects that even with a 75% allocation to sources the profits of coal-fired plants decline by 13% in 2015, and by over 20% in 2025.

Merchant Oil-Fired Facility Impact

Oil fired generating facilities generally are less cost effective than an efficient gas fired facility. Oil facilities require allowances on a 1.5 to 1.0 ratio as compared to gas facilities. Accordingly, this type of facility will operate at even lower capacity factors, will lose net revenue margin on the limited peak system condition occasions that they do run and become totally dependent on the capacity market or reliability must-run contracts for revenues to continue operation.

Offsets

Most stakeholders will agree that CO2 Capture and Sequestration technology is still in its formative stage. In the interim, offsets provide a reasonable, verifiable and lower cost path as a compliance option to control CO2 emissions. **There are no environmental or economic reasons to control the percentage and geographical location of quantifiable offset projects.** Broader application of offsets provide low cost compliance options, result in net CO_2 reductions, **reduce environmental and economic leakage** at RGGI borders, and assist in CO2 price control. Consumers and suppliers are both better protected with expansion of the offset program.

Investment (New & Existing)

The litmus test of good policy is whether the proposed guidelines will support investment in new and existing facilities. Without a commercially available solution, a 100% auction approach will make investment and capital financing of new fossil generation extremely difficult by creating the need to cover up to twenty (20) years of CO2 risk at the front end of a new project. Without an auction protocol available, it makes further analysis of this potential more difficult.

In addition, with respect to existing facilities, the successful structure of the SO2 and NOx programs (both federal and state) resulted in low cost energy, reduced emissions, and the addition of new technology. Under those programs, when considering a control technology solution, both the improved dispatch cost and sale of unused allowances due to the equipment upgrade were considered when making the capital decision. Under a 100% auction approach, since the source receives no allowance allocation, all future CO2 investments will be forced to only depend on long term energy forecasts to make investments that could range in the $150-300 million dollar range depending on size of the facility.

To date, neither the Regional Model Rule nor the New York State Pre-proposal has provided any roadmap to site and develop new fossil generation. At a time when new generation is critical, leaving the mechanism for new investment to chance is not in Massachusetts's or the region's best interest.

The potential unintended outcome of a 100% auction program design will be that states that adopt this approach will carry a higher regulatory risk premium than other markets or (states) when competing for the next new capital investment.

Leakage

Units are dispatched in the wholesale markets serving the RGGI states largely on economics. The Maryland Report finds that as a consequence of RGGI, relative electric prices will be higher in the RGGI region than in the surrounding regions. Also, transfer limits into the RGGI region will be maximized and generation levels from within the RGGI region will be supplanted by a larger amount of imports. As noted in the Maryland Report, Pennsylvania has excess capacity and could absorb some of this "carbon leakage," most likely to the detriment of the primary goal of CO2 reduction. Its CO2 emissions in 2002 alone exceeded the annual cap for the seven RGGI states as defined by the states in their MOU. In addition, new generation in states west or south of the RGGI region, combined with transmission upgrades leading into Maryland, will facilitate the shift of generation away from originating within Maryland, Delaware and New Jersey, and towards generation from within non-participant states. Ironically, the report (at page 67) credits imports resulting from RGGI with "holding down the price effects of the Maryland joins RGGI scenario." However, the Maryland Report neglects to analyze or mention the affects of these imports on the efficacy of the program and ambient air quality. Further, the report fails to capture the additional congestion costs that could arise by becoming even more dependent on imported energy. Currently, within the RGGI region, Maryland, Delaware, New Jersey, New York, Connecticut, Massachusetts, and Rhode Island are in need of additional generation capacity. In addition, Washington, DC, Baltimore, central Maryland, eastern PA, northern New Jersey, New York City, Long Island, southwest Connecticut, and Boston are all subject to congestion risk. These additional congestion costs have not been captured within the modeling except at the RTO control area borders.

- CO2

The Maryland Report notes that, "Depending on how they are grouped, states outside of RGGI could either see a reduction in carbon dioxide emissions when Maryland joins RGGI, or an increase. In general, this leakage will be small." We suggest that, in fact, the CO2 leakage is quite large. As indicated in the Report's *Table 9.9: Looking for Leakage: Effect of Maryland Joining RGGI on Cumulative Emissions of CO2 from Fossil Generators (2010-2025)*, when considering the entire Eastern Interconnect, fully 35% of the CO2 benefit (emissions reductions plus offsets) derived by Maryland joining RGGI is offset by CO2 emissions increases in surrounding Eastern Interconnect states that are outside of the RGGI region. While the Report notes that an argument could be made that it is more appropriate to look at the response of the nation as a whole to Maryland joining RGGI (which the modeling predicts showing overall CO2 reductions), it would seem that the basis for this look and attendant modeling conclusion is somewhat more tenuous. Regardless, it is apparent that leakage will be significant as a result of RGGI, and needs to be addressed to ensure the desired results of the program.

- SO2, NOx, Hg

Due to the fact that power plant SO_2, NOx and Hg emissions from RGGI states are generally at lower levels than surrounding areas, reduced generation within the RGGI states and resultant increased generation from non-RGGI states as a result of the RGGI program could actually result in overall increased SO_2, NOx and Hg emissions from power plants in surrounding states and the entire Eastern Interconnect Region. Due to different emission characteristics between different plants and fuels, it is not possible, at least at this time, to extrapolate SO_2, NOx and Hg emissions leakage from CO2 emission leakage data. However, as has been demonstrated through climate and transport analysis by various Northeast states, increased emissions from surrounding states will cause adverse ambient impacts in the RGGI region

We appreciate the fact that other air pollution control programs are expected to assure that SO_2, NOx and Hg emissions will be controlled over large geographic regions; however, the nature of cap and trade programs will nonetheless allow for leakage issues to arise in the RGGI region. For example, the Clean Air Interstate Rule (CAIR) caps SO_2 and NOx emissions over most of the Eastern U.S. but does not require that emissions will be controlled in any specific state or region (e.g., the Northeast) – only that, overall, reductions will occur within the Eastern U.S. Under SO_2 and NOx cap and trade programs, it is probable that some sources in states immediately upwind of the RGGI states will increase their import levels to the RGGI region, and hence, their emissions. Similarly, the Clean Air Mercury Rule implements emission reductions through a cap over the entire nation. While the cap and trade provisions of this rule are being challenged, nothing in the promulgated rule assures that increased imports in to the RGGI region will not bring with them increased mercury emissions into the region. States participating in a RGGI initiative must carefully review whether SO2, NOx and Hg emissions leakage resulting from upwind, non-RGGI regions will negate any emissions reductions and cause adverse ambient impacts within the RGGI region.

Need for Additional Studies

A number of key areas of the RGGI Program remain without adequate support or analyses including the following:

- Economic and thorough Environmental Leakage Analysis
- Auction Design Specifics
- Full reliability review with written summary
- Modeling which incorporates the effect of 100% auction methodology.
- Sensitivity studies of CO2 market and reliability impacts at different CO2 allowance price points.

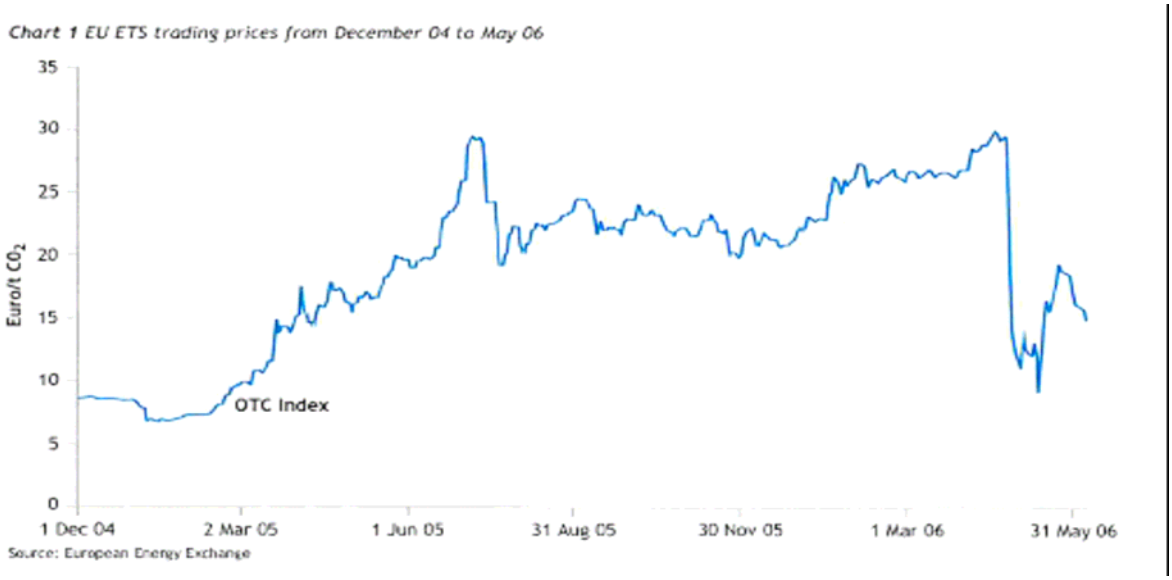
To date, none of these important analyses have been provided and they are necessary to fully evaluate any proposal and its total impact.

Modeling Assumptions

In reviewing the Maryland Report it is important to consider the following limitations and concerns:

- Contracted Plants - The modeling was based on all plants in the state being merchant facilities. This is not correct, and conclusions drawn as to the projected impact on merchant plants **CANNOT** be applied to contracted plants. Modeling of how RGGI would impact a contracted plant needs to be performed before any decisions can be made as to how these plants should be handled under RGGI.

- Allowance Price - The model used imposes a constraint that the rate of change in the price of CO2 emissions allowances must be no greater than the interest rate. This is unrealistic. The following table illustrates the price volatility that has been observed in the EU trading program.



Clearly, the assumption used in the modeling is not appropriate, and modeling results and conclusions that are sensitive to allowance price volatility should be questioned.

- Fuel Price – We agree with the author of the Maryland RGGI modeling study that, "…one might want to investigate the impact of higher fuel prices on the resulting electricity rates. While the Haiku model results have shown that Maryland joining RGGI has a negligible impact on electricity rates, the same might not be true if, for example, higher natural gas prices were considered."

- 316(b) Implications – On January 25, the United States Court of Appeals for the Second Circuit issued its decision in *Riverkeeper, Inc. v. EPA* regarding the July 9, 2004 final Phase II cooling water intake structures rule EPA promulgated pursuant to section 316(b) of the Clean Water Act. A number of provisions in the Phase II rule provided for flexibility and the ability to incorporate cost-benefit analysis in the evaluation of Best Available Technology. As a consequence of the January ruling, it can be expected that there is a reasonable probability that plants with once-through cooling will be required to install additional and very costly fish protection devices. This additional significant capital and O&M cost burden cannot be ignored in determining the financial viability of existing generating plants with once-through cooling, and needs to be incorporated in the assessment of the ability of plants to absorb additional costs to comply with RGGI requirements. In other words, the cost of a RGGI program, while daunting on its own, must be looked at cumulatively with other impending program costs.

- Offset Constraints – It is suggested that modeling should be performed removing all offset constraints on the overall costs and environmental consequences of the program.

- Timing of Energy Efficiency Programs - The timing of the energy efficiency programs appears to be instantaneous with the start of RGGI. Is that realistic? Won't there be a lag between program start, fee collection, energy efficiency program startup, and actual energy efficiency gains? If so, how much lag would there be and shouldn't the modeling incorporate this more realistic assumption?

- Electric Demand – An evaluation of Table 14.4 indicates that the cumulative annual growth rate of electric demand in the mid-Atlantic Region appears to be higher using EIA's Annual Energy Outlook (AEO) vs. the PJM projection (1.61% vs 1.51%). The Maryland RGGI modeling study used AEO numbers which are represented as being "more conservative". However, the PJM growth rate includes a negative number in 2005 which distorts the average. In fact, the PJM growth in 2010 and every later year is significantly higher than the AEO estimate. Using the PJM growth rate for electric demand would result in higher demand during the years 2010-2015 and possibly beyond, when RGGI - mandated CO2 reductions are needed. Therefore, we suggest that the modeling should not be overly constrained in this important area and should be done using PJM 2010 and beyond projections.

- Impact of Auction Revenues on Demand – The report should provide all of the assumptions used to model the impacts of auction revenues on demand and energy efficiency. According to the figures provided in Table 9.2, energy efficiency programs funded by the sale of RGGI allowances will result in electric demand increasing 25.9% from 2010 – 2025 versus an increase of 27.5% without RGGI. The Report concludes that the 1.6% decrease in demand relative to the baseline scenario counteracts increased costs of electricity supply that would otherwise result from RGGI as shown in Figure 12.1. The economic effect of this relative decrease in demand is a core underpinning for the report's conclusion that RGGI will have little net impact on the Maryland's economy, notwithstanding increasing supply curve costs.

  According to the Report, the relatively lower demand results from the Maryland energy efficiency programs funded by annual allowance auction revenues of $38 mm in 2010 increasing to $96 mm in 2025. The Report does not contain or explain the coefficient used in the model as the relationship between efficiency expenditures and projected demand reduction other than stating that the analysis employed supply curves for energy savings "developed using information on technology costs provided by ACEEE" (American Council for an Energy Efficient Economy). The Report states that the analysis allocated the energy efficiency funds based on data from Connecticut's energy efficiency fund and conversations with staff at ACEEE. According to the report, "a number of assumptions" went into the development of the energy efficiency supply curves acknowledging that "if any of the myriad assumptions were to change this could have important implications for the results." Because the impact of energy efficiency expenditures on demand is fundamental to the conclusions in the report, we suggest that all of the assumptions need to be presented to assess the validity of the analysis.

Attached are recent comments submitted by the Maryland Public Service Commission concerning the Maryland RGGI modeling, suggesting additional sensitivity analyses modeling the impact of changes to certain key assumptions be considered.

Summary

Massachusetts and other RGGI states are at a critical energy crossroad. It is important that we get it right because of the critical and immediate capacity needs that exist. Further, it is imperative we get it right so that it can form the template for a national program. The final outcome must support our existing needed infrastructure, provide investment signals for new investment, and minimize price impacts on consumers as much as possible. AES will support a reasonable, well structured CO2 program. However, a program with the problematic areas that we have identified does not balance environmental, economic development and energy needs.

We believe the Regional Model Rule as originally designed and approved only months ago was on the right track with respect to allocation methodology for auction and merchant generation sources. However, we suggest additional thought must be given to how long term contracted plants are addressed, greater flexibility in offset utilization is needed and completion of the required studies are necessary.

COMMENTS OF PUBLIC SERVICE COMMISSION OF MARYLAND STAFF ON CENTER FOR INTEGRATIVE ENVIRONMENTAL RESEARCH STUDY CONCERNING MARYLAND'S PARTICIPATION IN THE REGIONAL GREENHOUSE GAS INITIATIVE

Thank you for providing the opportunity for the Staff of the Public Service Commission ("Commission Staff") to provide comments on the University of Maryland Center for Integrative Environmental Research's ("CIER") independent study ("Study") of the economic and environmental impacts related to Maryland's participation in the Regional Greenhouse Gas Initiative ("RGGI"). The Commission Staff appreciates the effort behind and thoroughness of the CIER Study, and is available to answer any questions on the comments provided herein.[1]

The CIER Study requests review and comment on the final analysis for the stated purpose of adding value to the Study, which will be used as an input into decision making by the State of Maryland on RGGI membership issues.[2] The Commission Staff hopes that the suggestions that follow are useful in fine-tuning the CIER Study and in any future evaluations of these subjects. The Commission Staff generally suggests that CIER conduct additional sensitivity analyses modeling the impact of changes to certain key assumptions built into the models on which the Study is based.

Due to the 2006 enactment of the Healthy Air Act, Maryland will be the first state that obtains most of its electricity from coal to adopt a four pollutant (nitrogen oxides, sulfur dioxides, mercury and carbon dioxide) approach to air quality. In Section 2 of the Healthy Air Act, the General Assembly directed the Maryland Department of the Environment ("MDE") to oversee the development of a study of whether there will be an adverse impact to the State's economy, the reliability of the State's energy supply and the cost of energy for consumers as a result of the State's entry into and continued participation in RGGI. The CIER Study was conducted in response to this mandate.

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[1] The Commission Staff has reviewed the report of February 1, 2007 as provided on the CIER web site and the materials provided during the briefing held on February 16, 2007 at the Maryland Department of the Environment in Baltimore.

[2] Maryland is unique among the existing RGGI states, in that electric reliability in the State depends upon the burning of coal to meet its system peak. The original RGGI states (New York and the New England states) have sufficient excess capacity to meet their peak demand without burning coal, which is only 9% of their installed capacity. The PJM States of Maryland, Delaware, New Jersey, and Pennsylvania require coal, which is 34% of their installed capacity, to maintain reliability today and into the foreseeable future.

To ascertain the potential impacts of the State joining RGGI, CIER coordinated runs of three different models. It is important to note that the Study's key findings are a comparison of the changes to the results of the three models when only one assumption -- whether Maryland does or does not participate in RGGI -- is changed. The Commission Staff believes that the unfolding of future events may undermine some of the Study's other assumptions. Therefore, the Commission Staff thinks the Study would be improved if the models contained analyses of the potential impacts of other changes to the major assumptions built into the studies.

There are several major assumptions built into the models for which sensitivity analyses could prove enlightening. In no particular order, they are:

1. The models were run on the assumption that demand in Maryland will grow based on the national growth data in the 2006 Annual Energy Outlook. Maryland may realize significantly higher growth in demand and energy consumption due to the influx of jobs, businesses and residents due to the most recent round of changes from the federal Base Realignment and Closing ("BRAC") process. It might be useful to re-run the models with the projected additions to base employment levels and the resulting influx of families and businesses supporting the new additions.

2. The models were run on the assumption that 25 percent of carbon dioxide ("CO2") allowances are auctioned to generators. With that level of allowances subject to auction, the Study projects a 13 percent decline in profitability of coal-fired generation in the State. Retrofitting nitrogen oxide ("NOx"), sulfur dioxide ("SO2") and mercury controls onto older, less profitable coal-fired generation already raises questions as to whether the owners of that generation can or will be able to afford those controls. Thus, a 13 percent decline in profitability due to RGGI allowance costs raises concerns, including potential plant closings.[3] Since the RGGI membership memorandum of understanding ("MOU") allows states to auction more than 25 percent of its baseline allowances, it would be helpful to rerun the models with an auction of 50 percent, 75 percent and 100 percent of allowances in case Maryland elects to auction more than 25 percent of allowances.[4]

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[3] See, CIER Study at p. 142.

[4] In response to a request from certain Senators, the Energy Information Administration prepared a report that analyzes a national allowance cap-and-trade system similar to the system analyzed in the CIER Study, where from 10% to 38% of allowances are auctioned over the 2012-2030 period. *See* Energy Information Administration, *Energy Market and Economic Impacts of a Proposal to Reduce Greenhouse Gas Intensity with a Cap and Trade System*, DOE/EIA-SR/OIAF/2007-01 (Washington, DC, January 2007) web site – http://www.eia.doe.gov/oiaf/servicerpt/bllmss/pdf/sroiaf(2007)01.pdf

3. RGGI's MOU currently determines baseline allowances and ultimately compliance measures based on the amount of CO2 produced by generation located within a member state. RGGI staff is currently evaluating a change to this construct such that RGGI states would need to obtain allowances not for CO2 produced by electricity *generated* within the states, but instead for CO2 associated with the electricity *consumed* within the state, regardless of where it is produced. This is of critical importance to Maryland because we are a net importer of electricity, and much of the electricity imported is produced by CO2-intensive coal-fired generation based in the Appalachian coal fields. The models should be rerun with the assumption that Maryland may need 30 percent more allowances than are currently under discussion to account for CO2 associated with those imported amounts of electricity.

4. The Study assumes that three major transmission lines currently being proposed will be built and operated in the timeframes proposed by the developers. These projects are necessary to accommodate projected demands for electricity in Maryland. However, the Commission Staff observes that transmission lines rarely are built as proposed and even more rarely within the timeframes projected by developers. For example, a recent 90-mile transmission line that American Electric and Power ("AEP") proposed for rural West Virginia took 18 years to build and place in service, even though the applicant originally calculated it would take five or six years. The lines assumed in the Study generally are longer, more expensive, and traverse more populated areas than the AEP project. It might be useful to rerun the models with longer in-service dates for these projects, and maybe even conduct runs assuming that one or more of the projects never get built.

5. The Study assumes that Constellation Energy Group ("CEG") will obtain siting authority for two nuclear generating units at Calvert Cliffs in a fairly short period of time. As of this writing no formal application for these units has been filed, and CEG may decide not to pursue these units at all. Additionally, no new nuclear units have been sited and constructed in the United States since the Three Mile Island incident in 1979. It might be helpful to rerun the models showing the impacts of delays in project completion and/or one or both of the proposed units not being built at all.

The Commission Staff has additional observations concerning the Study. The Study assumes that increased energy efficiency measures in the State will offset a significant amount of the growth in demand for electricity that otherwise would occur. After reviewing the inputs to the models, the Commission Staff has questions whether joining RGGI will produce the Study's assumed level of offsets from energy efficiency. Of course, if the reductions from the assumed energy efficiency measures are not realized to the extent modeled, or if demand for electricity grows due to other reasons in spite of demand-side management expenditures, or some combination thereof, joining RGGI will not result in the modeled relative reductions in the rate of growth in demand and reductions in ratepayer bills.

One of the Key Findings of the CIER Study is that under a decision to join RGGI, "electricity demand will decrease and the study sees consumers saving money". A number of competing fluctuations are weighted in the CIER Study to arrive at this conclusion. The basic assumption is that consumers will shift from spending on energy consumption to spending on energy efficiency.[5] Table 9.2 summarizes the Study's Key Findings about this aspect of the future: RGGI demand reductions and efficiency savings are modeled at1.1 billion kilowatt hours ("BkWh") in 2010, increasing to 2.5 BkWh by 2025. Similarly, the Study predicts that, under RGGI, imports of electricity into the State are 2.23 BkWh higher in 2025, while exports are 3.14 BkWh lower.

What these numbers mean, of course, is that CIER is not projecting that if Maryland joins RGGI, the demand for electricity in the State actually and absolutely will decrease. Instead, CIER's analysis suggests that the rate of growth in Maryland's demand for electricity will be lower than it otherwise would be if Maryland joins RGGI. In other words, the numbers in the models do not support the literal wording of the finding.

Additionally, the Commission Staff observes that the Study's conclusions that customers will save money may be susceptible to the Study's assumption that 85 percent of efficiency spending would be spent as payments to in-state construction trades. Thus, the models seem to assume that consumer spending on energy efficiency investments largely will be an in-state phenomenon, an assumption that may be tested as dollars flow out-of-state to manufacturers of energy efficient appliances and other methods of increasing energy efficiency.

Another observation concerns the Haiku model's output leading to the Study's conclusion that Maryland joining RGGI does not affect electricity rates. Summarizing this result, the CIER Study states that "the supply curve shifts up and to the left at the same time the demand curve shifts down and to the left." In other words, instantaneous response by suppliers and consumers to the increase in cost of electricity from the CO_2 cap and trade component of RGGI is expected to serve as the primary source of

[5] The costs for these billion kilowatthours of energy efficiency savings rise from $38.8 million in 2010 to $96.7 million in 2025 (see Table 13.4).

protection for Maryland consumers from rapid price changes. Essentially, the CIER Study assumes that the energy suppliers will increase prices as a result of the State joining RGGI, but that consumers will reduce the amount of electricity used in response to the price increases. Therefore, the Haiku model assumes that the cuts in demand due to RGGI-driven price increases and implementation of energy efficiency measures will result in decreased demand.

As noted earlier, this assumption seems to be overstated – what is actually predicted is that the rate of growth will be less with RGGI than without, not that demand actually will decrease. In any event, history shows that even significant price increases drive at most a temporary decrease in demand, followed by resumption in demand growth. The Haiku model should be rerun to include sensitivity analyses modeling historical reactions to price increases, and not rely solely on an assumed reaction that would be historically anomalous.

Another factor that has been deemed appropriate for modeling is that the transmission line construction costs required to support a 19BkWHr increase in imports may result in increased costs to Maryland consumers. The increase in demand for power in Maryland is largely to be satisfied by imports from more costly non-RGGI grid sources. These two factors, the construction of transmission facilities and the importation of more power, suggest an increase in the price of power to the consumer. The consumer impact findings rely heavily upon an expanded role for imports to meet the in-state demand in the future. The Commission Staff believes that further study of these costs may be necessary before relying on increased import capabilities provided by new transmission projects as a basis for policy recommendations.

The Commission Staff also wishes to comment on several other assumptions and findings. First, Figure 9.6 suggests the cost of a RGGI allowance grows almost threefold during the period. The CIER Study assumes that energy efficiency expenditures will shield electricity consumers from these cost increases. Contrary to this assumption, it is quite possible that these costs could exceed savings from energy efficiency programs, and be passed onto consumers.

Second, allowance costs, particularly those in the future, are very much an unknown. The Commission Staff suggests modeling at the allowance cost levels suggested by the RGGI "circuit breakers" to further test the sensitivity of the results to allowance prices.

Third, the narrative prior to Table 14.1 states that only natural gas is used in Mittal's electrical production process and assumes that it has minimal impact on CO_2 production. Therefore, the Study presumes that exclusion of Mittal steel will have a minimal effect (p.79). It is unclear whether this is correct. This assumption disregards Blast Furnace Gas as a CO_2 contributor. Thus far, Mittal Steel's electric power production process relies predominantly on Blast Furnace Gas ("BFG"). BFG is a byproduct of using coke (a purer form of carbon derived from coal) as a major

component of steel production. The BFG is then used to produce electric power that is consumed by Mittal.

Data obtained from EIA Forms 906/920 indicates that during 2004, the CO_2 output for Mittal was 2.3 million tons of CO_2 or approximately 7% of the total budget for CO_2 in Maryland. As such, Mittal Steel's impact does not appear to the Commission Staff to be so minimal as to support the Study's assumption that the market for purchasing state carbon credits will be limited to stationary, generation-for-profit sources rather than the full universe of CO_2 emitters, including Mittal Steel and other self-generators.[6]

In conclusion, the Commission Staff is somewhat satisfied that the CIER Study is a starting point for the discussion of the impacts on the State from joining RGGI. The Study raises a number of areas for both further study and sensitivity analyses of not only the key findings but also the offsets assumed in reaching those findings. Additional detail regarding the Commission Staff's insights and observations on transmission facility needs and the adequacy of supply can be found at the Commission's web site at the following URL's:

- Ten Year Plan (2006-2015) of Electric Companies in Maryland
  http://www.psc.state.md.us/psc/Reports/2006-10YrPlan.pdf

- Electric Supply Adequacy report of 2007
  http://www.psc.state.md.us/psc/Reports/2007SupplyAdequacyReport_01172007.pdf

Thank you again for the opportunity to provide comments on the CIER Study of the potential impacts of Maryland joining RGGI. Please let us know if you have any questions about this material or would like additional information.

[6] The Healthy Air Act applies to a specific enumerated list of sources and it is unclear whether legislation to implement the RGGI Model Rule may also be similarly limited to those sources.

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April 24, 2007

Nicholas Bianco
MassDEP
Bureau of Waste Prevention
One Winter St
Boston, MA 02108

RE: MA RGGI Stakeholder Group Topical Forum #3

Dear Mr. Bianco:

Associated Industries of Massachusetts (A.I.M.) is the largest employer association in Massachusetts with over 7500 members. A.I.M. members include large and small employers from the industrial, commercial and service sectors, all of whom would be impacted by any proposal concerning the auctioning of CO_2 allowances.

A.I.M. appreciates the opportunity to comment on the above referenced matter. As you know, A.I.M. has participated in all the DEP RGGI stakeholder groups. This gives us a unique perspective on the process and substance going forward.

First, we would like to reiterate what we have said in previous letters - energy costs are devastating the Massachusetts economy. It is affecting all sectors of the Massachusetts economy and it is not only hampering our ability to attract new companies, but also hampering our ability to retain existing jobs, especially in Central and Western Massachusetts.

In previous letters we told you about the fate of several Massachusetts companies that have left the state or closed due to high-energy prices. Since that time, another company has indicated it will be shutting its doors in July because of high-energy costs. This shutdown will result in approximately 135 more people losing their jobs in addition to the ones described in our previous letters. This brings the total jobs lost to at least 300 employees, just in the last few months since DEP convened the RGGI stakeholder group. While we do not believe any company left in anticipation of DEP's rulemaking, the fact remains that energy costs are so much higher in Massachusetts and New England that companies are deciding it is impossible to operate here.

Interestingly, the number of jobs lost in the past few months due to energy costs is almost exactly equal to the jobs the state just announced would be created in Massachusetts pursuant to the state agreement with Evergreen Solar to expand in Massachusetts – at a cost of nearly 40 million dollars in direct subsidies. While that announcement was good news, it cannot hide recent losses and the need to grow jobs in Massachusetts, particularly in Central and Western MA and not merely transfer the numbers to other regions of the state.

This job loss trend must not continue. Unfortunately, we may in fact attain the desired zero growth in electricity that some advocates have long been pushing not by conservation efforts but as the result of the exodus of people and jobs from Massachusetts. One utility company in Massachusetts has 30% of its residential load on a low-income rate, only underscoring the fact that jobs for blue-collar workers are fast disappearing.

With this as context, we urge DEP to make decisions regarding RGGI not in a vacuum but within the framework about what high prices will do to the economy in this area.

Turning to the most critical substantive point in the stakeholder process in our view, DEP must sunset the 7.29 performance standard regulations when RGGI is implemented. All throughout the discussion process, RGGI was sold as a substitute for 7.29, not an additional requirement. Now some advocates, at the 11th hour, are shocked 7.29 will be repealed and demanding that the program remain. So instead of Massachusetts being in sync with a regional program (the entire point of having a regional program), DEP will still be the outlier. This is completely counter to the message that DEP has been sending and suggestions otherwise should be dismissed out of hand.

Maintaining the 7.29 regulations after RGGI is implemented would significantly hurt DEP's credibility going forward. During virtually every discussion concerning RGGI, A.I.M. heard time and time again that there should be a national program and should that happen RGGI would be repealed. If Massachusetts were to decide to continue to enforce 7.29 after RGGI is promulgated, it would appear that in reality DEP has no intention of sunsetting RGGI when a national program is implemented – a very bad outcome. If we are all going to work for a national program (and we should), A.I.M. and other stakeholders need to know that the goal is to achieve a uniform national emissions reduction program and level the playing field for interests in the northeast, and not to put another layer of regulation on Massachusetts facilities. Given the desires of some advocates, we could end up with three regulatory standards – national, regional and state. This is a totally unacceptable outcome.

DEP should not focus on being a leader in every environmental program. DEP instead should be a leader by focusing on the environment and the economy, and making difficult decisions that balance the needs of the economy with the needs of the environment – that is real leadership. Hundreds of workers are losing their jobs due to these latest round of company closures. While DEP is not entirely at fault, many of the reasons for our high

energy costs are due to the restrictive nature of DEP's environmental policies of promoting natural gas power plants over other more diverse fuels – creating in effect a state energy policy. We are now paying the price for this shortsighted and unbalanced approach to our energy supply. We must not compound these high cost decisions of the past with further policies and regulations that will make it even more difficult to do business in Massachusetts.

Thank you for the opportunity to make these suggestions and we look forward to working with you in the future. Should you have any questions please do not hesitate to contact me at 617-262-1180.

Sincerely yours,

Robert A. Rio, Esq.
Vice President
Government Affairs

Conservation Law Foundation

April 17, 2007

BY EMAIL

Nicholas M. Bianco
Massachusetts DEP
One Winter St
Boston, MA 02108

Dear Mr. Bianco:

The Conservation Law Foundation (CLF) offers the following comments in response to the questions posed by the Massachusetts Department of Environmental Protection (MassDEP) at the public meetings on April 5th and 10th, 2007 regarding the implementation of the Regional Greenhouse Gas Initiative (RGGI) in Massachusetts.

ISSUES REGARDING THE "TRANSITION" TO RGGI

At the April 5th and 10th, 2007 meeting, MassDEP posed the following questions regarding the "transition" between the regulations at 310 CMR 7.29 and RGGI:

- When should MassDEP stop certifying and verifying RGGI-ineligible MA GHG Credits?

- What should be done with unused RGGI-ineligible MA GHG Credits once RGGI begins?

Our answers to these questions are simple, and consistent with our earlier comments:

- MassDEP should immediately stop certifying and verifying RGGI-ineligible "MA GHG Credits"; and

- Any such RGGI-ineligible "MA GHG Credits" should, simultaneously, be declared to be ineligible as a compliance option with regard to the Carbon Dioxide provisions or 310 CMR 7.29.

Firmly tying 310 CMR 7.29 ("7.29") offset eligibility to RGGI immediately would create a high level of business certainty for regulated parties by giving them clear direction concerning what rules will govern offset eligibility. This step would ensure that the

integrity and environmental performance of the program would, at the very least, be consistent with the qualities and properties of the RGGI program.

As we have argued in earlier comments, the procedural path for taking this step is clear:

- MassDEP should immediately issue informal regulatory guidance making clear that the process for certifying "MA GHG Credits" is being suspended as further regulatory action is being taken;
- MassDEP should then issue an emergency rule, exercising the authority granted by paragraph 5 of Section 3 of Chapter 30A of the General Laws, bringing the 7.29 offset eligibility mechanism into conformity with the offset eligibility standards set forth in the RGGI Model Rule; and then
- MassDEP can then, within the three month window referenced in the Section 3 of Chapter 30A, supplement the emergency rulemaking with a notice-and-comment rulemaking – which in this case would propose adoption of the full RGGI model rule.

This is exactly the type of situation where the use of the emergency regulatory power by MassDEP would be appropriate. A fundamental shift in underlying policy occurred with the signing of the RGGI MOU by Governor Patrick, creating an exigent need to shift regulatory structures, in particular eliminating the "go-it-alone" modifications to 310 CMR 7.29 put in place by the prior administration. An emergency rulemaking is needed in order to terminate this Massachusetts-only device before a significant number of RGGI-ineligible "Credits" are created.

We will not rehash here the legal arguments that we raised in our March 12 letter (filed jointly with Environment Massachusetts and the Massachusetts Climate Action Network) describing the case law and statutory authority that MassDEP has to take these steps – suffice it to say that such authority is clear.

The substantive reasons for taking this course are similarly obvious. As we previously argued, allowing the system of non-RGGI eligible "GHG Credits" to actually move forward would not only undermine the integrity of the environmental protection that the regulation should accord the public by allowing dubious "one-off" projects to be eligible as compliance options under 7.29, but would also create uncertainty for regulated parties and other stakeholders. Essentially, moving forward with the "GHG Credit" mechanism separate from RGGI would create a trap for business by putting in place a process of certifying compliance options that very shortly will become invalid.

MassDEP's current "preferred option" of allowing conversion of MA GHG Credits into RGGI allowances has the potential to undermine the auction mechanism – undercutting Governor Patrick's strongly stated intention to auction the allowances from the Massachusetts budget. If the cost of the MA GHG Credits is substantially less than RGGI allowances this process will simply create a back door mechanism for some players to obtain allowances below the market price.

THE FLAWED ASSUMPTION THAT THE C02 PROVISIONS OF 310 CMR 7.29 SHOULD NO LONGER BE ENFORCED ONCE RGGI IS IN OPERATION

As stated at the April 5th hearing we offer a strong note of caution and concern about the assumption that the CO2 provisions of 7.29 should be considered moot once the RGGI program is in operation. This decision runs directly counter to the very effective model under the federal Clean Air Act and state agency (including MassDEP) practice under the existing cap-and-trade programs. As we argued in our March 12th letter:

> With removal of the overly complex (and unnecessary with the advent of RGGI) trading and Credit regime grafted onto this regulation during 2006, the CO2 provisions of 310 CMR 7.29 would again comprise a simple and powerful regulation that invokes MassDEP authority in the same way that such authority has long been asserted over emissions of other pollutants. For many years, MassDEP has asserted specific rate limits on SO2 and NOx that coexisted peacefully with the larger national cap-and-trade programs that also regulated emissions of the same pollutants from the same emitters. No conflict was seen (or existed) between the source-by-source regulatory system that MassDEP enforced and the larger effort to regulate such sources as a whole through the cap-and-trade mechanism.

Revisiting this question prior to final drafting of the regulations implementing RGGI is essential – MassDEP should be very slow to abandon this important regulatory tool for addressing this air pollutant. The Massachusetts Attorney General's office, working with many other states and parties (including CLF) just won an enormous victory from the United States Supreme Court on this very question of whether CO2 can and should be regulated like other air pollutants under the federal Clean Air Act. MassDEP should pave the way for full implementation of that decision by retaining this regulation even after the larger overlay of RGGI takes effect, much like MassDEP has continued to regulate SO2 and NOx emissions from power plants directly in coordination with the cap-and-trade programs for those pollutants.

RGGI RULE DESIGN ISSUES

With respect to MassDEP's consideration of the "rule design" issues also raised at the April 5th and 10th meetings we express our appreciation for MassDEP's embrace of the need for early and frequent auction in order to promote price discovery and market stability. A well run regional auction, built up and designed through engagement of all states and stakeholders, can address a wide range of issues raised by many voices. We urge MassDEP to be a strong voice, calling upon the highest levels of state government as needed, to ensure that the auction design process is truly open and informed by many participants – and is not overly dominated by the New York State government who are funding the start-up of the auction.

We also reiterate our strong support for a robust and open auction and our strong support for the adoption of the voluntary renewable energy provision – specifically referencing the comments of the Union of Concerned Scientists on this last point.

Thank you again for your time and attention and we stand ready to answer any questions or provide any clarification.

Sincerely yours,

Seth Kaplan
Senior Attorney

By Electronic Delivery: Nicholas.M.Bianco@state.ma.us

April 17, 2007

Mr. Nicholas M. Bianco
Massachusetts Department of Environmental Protection
Bureau of Waste Prevention
One Winter Street
Boston, MA 02108

Re: Comments of Dominion Energy New England, Inc. on the MA RGGI Stakeholder Meetings of April 5th and 10th, 2007

Dear Mr. Bianco:

Dominion Energy New England, Inc. ("Dominion") appreciates the opportunity to submit comments to the Massachusetts Department of Environmental Protection ("the Department") relative to the MA Regional Greenhouse Gas Initiative ("RGGI") MA RGGI Stakeholder Meetings of April 5th and 10th, 2007. The goal of these meetings was to solicit comments on the MA RGGI implementation issues as presented by the Department and further explained in the meetings' presentations. Dominion thanks the Department for this opportunity for input and recognizes the Department's willingness to listen to our views for ways to improve the structure of RGGI as it is developed for implementation in Massachusetts ("MA").

MA plans to revise its regulations in order to implement the RGGI Model Rule at the state level through revisions to both 310 CMR 7.29 ("7.29") and 310 CMR 7.00, Appendix B, (7). Final promulgation of these amendments is expected by early 2008.

As you are aware, Dominion has submitted MA RGGI transition and auction comments twice during the month of March 2007. So as to not duplicate those comments, we request that those comments be considered incorporated herein.

Sunset the MA CO2 Emissions Standards of 310 CMR 7.29

As stated in our previous comments, Dominion believes that the implementation of the 1,800 lb/MWHr rate standard of 7.29 should be revoked so as not to expend valuable Department and regulated sources resources for a program that will be implemented for a limited amount of time with no discernable environmental benefit. However, Dominion strongly supports its position to sunset the MA CO2 emissions standards of 310 CMR 7.29 as RGGI commences in January 2009.

Dominion believes that Massachusetts units should only be subject to one carbon constraining program. Preferably, a carbon program should originate at the national level, but in any case, to the extent it is implemented at the state level, only one set of requirements should prevail. Having two sets of carbon dioxide requirements will put additional burden on Departmental resources and unnecessarily but significantly complicate program implementation. Additionally, more economic pressure from duplicative carbon related costs would further exacerbate reliability and fuel diversity issues associated with both[7] carbon constraining programs, with unknown impacts to consumer retail prices.

Deadline and Exchange Ratio for RGGI-Ineligible Projects

The proposed deadline to receive exchangeable GHG Credits under 7.29 for RGGI allowances is December 31, 2012. This timeframe is significantly shorter than the ten-year or twenty-year investment horizon contemplated by RGGI. Dominion recommends that this timeframe be extended to December 31, 2018 to appropriately recognize investments made into non-RGGI eligible 7.29 GHG Credit projects.

Furthermore, the Department is contemplating the following two options as mechanisms for transferring RGGI-Ineligible MA GHG credits to RGGI CO2 allowances:

Option #1: (Preferred by MassDEP)

- *Allow for the annual exchange of 2 GHG Credits for 1 RGGI CO2 allowance.*
- *Sufficient RGGI CO2 allowances would be set aside to cover demand without pro-ration.*

Option #2:

- *Set aside 125,000 MA RGGI CO2 allowances for four years (2009 through 2012).*
- *Exchange them for GHG Credits at a 1:1 ratio, or lower (pro rata), as constrained by number of eligible credits.*
- *Exchange would occur after all GHG Credits have been verified (i.e., June 1, 2013).*

At the stakeholder meeting of April 10, 2007, the Department indicated that it could potentially limit the number of allowances set aside under Option #1 by changing the ratio from 2:1 to another ratio, even one up to 1,000:1. Given the extreme uncertainty on return on investment associated with GHG Credits at this time, this proposal would make it financially impossible for companies to invest in non-RGGI GHG Credit projects at this time, contravening the intent of 7.29. This would put the companies subject to the carbon dioxide emission standards of 310 CMR 7.29(5)(a)5 into an untenable position regarding compliance. Dominion recommends that any unused RGGI-ineligible MA

[7] 310 CMR 7.29 CO2 and RGGI.

GHG Credits should be fully bankable and transferable into the RGGI program at a 1:1 ratio. Corporations have made legitimate investments into these projects. Therefore, they should be credited appropriately under any successor carbon constraining program.

Because of the uncertainty regarding the exchange ratio coupled with the proposed deadline to receive exchangeable GHG Credits under 7.29 for RGGI allowances of December 31, 2012, companies are extremely reticent to invest further in non-RGGI eligible projects, which further limits their compliance options, particularly for the year 2008. Creating certainty as soon as possible for 2008 and beyond is critical to business decision making – companies must estimate in advance of operation (in the case of forward contracts or bidding) what their operating costs (including CO2) will be in order to make prudent business decisions. The more compliance flexibility is limited, the higher the likelihood of companies that are put in a position to have to choose whether to operate their units. Companies may choose 'not to operate' in the absence of knowing if compliance options, either allowances or offsets, are available in the market and at what price. This issue is closely coupled with "payments to the GHG Expendable Trust" as discussed below.

Payment to the GHG Expendable Trust

The current provisions of 310 CMR 7.00: Appendix B(7)(d)6 indicate that if, at any time prior to January 1, 2009, the MassDEP Commissioner determines that the price of GHG Credits or of applied-for GHG Credits substantially exceeds the Offset Trigger Price or the Trust Trigger price or if insufficient GHG Credits are available in the market, then the Commissioner may, after public notice, and an opportunity for public comment, expand the geographic scope for where offsets can come or allow payments into the GHG Expendable Trust. Currently, this provision sunsets by January 1, 2009.

In its 310 CMR 7.29 response to comments[8] in 2006, the Department indicated, "To ensure that this nascent program is not rapidly made untenable through dramatic price spikes or GHG credit unavailability, the Department will maintain this circuit breaker mechanism for the initial years of the program. Facilities will begin complying with the carbon dioxide emission cap in 2006 and the rate cap in 2008. The sunset date of January 1, 2009 allows the GHG Credit market to develop for several years." This program is still nascent and that the GHG credit market has not developed as anticipated, due to regulatory uncertainty. Therefore, in the event the 310 CMR 7.29 CO2 rate standard is implemented, this sunset provision, should be removed from the regulation.

The removal of this sunset provision is closely linked with the ability of the units subject to 310 CMR 7.29 to continue to operate and make business commitments in the face of this regulatory uncertainty. As the Department is aware, simply backing down generation will not solve this issue for facilities which have units that operate above 1,800

[8] MassDEP, *Response To Comments On Proposed Amendments To 310 CMR 7.00 et seq.: 310 CMR 7.00: Appendix B "Emission Banking, Trading, and Averaging" and 310 CMR 7.29 "Emissions Standards for Power Plants,"* September 2006, pages 16-17.

lbs/MWhr. These facilities must stop generation altogether in order to comply with the 1,800 lbs/MWhr, if they are not able to procure enough GHG Credits to cover their anticipated generation.

Additionally, as indicated by ISO-NE's current operable capacity analysis, New England continues to shows deficiencies in all weeks of the upcoming June thru August summer 2007 period.[9] The largest deficiency is forecasted at 1,480 MW during each week in June. July and August show deficiencies at approximately 840 MW. Environmental policies that lack compliance flexibility, such as allowing payments into the GHG Expendable Trust for *all* compliance years prior to RGGI implementation, will contribute further to these types of bulk power system deficiencies, particularly in 2008 when the 1,800 lb/MWhr rate goes into effect. This reliability threat is further reason to remove this sunset provision from the regulation.

Once again, we appreciate the Department's consideration of these issues and if you have any questions, please call Paula Hamel at 401-457-9234 or e-mail at paula.a.hamel@dom.com.

Sincerely,

Pamela F. Faggert

Cc:
I. Bowles, Secretary Energy and Environment
A.O'Donnell, Acting Commissioner, MassDEP
J.Colman, Deputy Commissioner, MassDEP
E. Kunce, Deputy Commissioner, MassDEP
D. O'Connor, Commissioner, DOER
J. Sanderlin, Dominion
D. Weekley, Dominion
M. Sheeley, Dominion

[9] Joanne Bialas, 2007 Annual Maintenance Schedule – April 2007, memorandum dated April 5, 2007. Found at: http://www.iso-ne.com/genrtion_resrcs/ann_mnt_sched/2007/ams_2007_070405.pdf

Environment Northeast

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MEMORANDUM

April 17, 2007

To: MA Executive Office of Energy & Environmental Affairs
MA Department of Environmental Protection
MA Division of Energy Resources

From: Derek K. Murrow, Director - Policy Analysis
Samuel P. Krasnow, Policy Advocate and Attorney
Alice E. Liddell, Policy Analyst

RE: **Comments on Transitioning from 7.29 to RGGI and MA RGGI Rule Outline**

Environment Northeast is a nonprofit research & advocacy organization focusing on the Northeastern U.S. and Eastern Canada. Our mission is to address large-scale environmental challenges that threaten regional ecosystems, human health, or the management of significant natural resources. We use policy analysis, collaborative problem solving, and advocacy to advance the region's environmental and economic sustainability.

Environment Northeast is part of the 24 member Stakeholder Group which was selected by the Regional Greenhouse Gas Initiative (RGGI) states to represent electric generator, environmental, consumer, and other affected interests in the Northeast and Mid-Atlantic regions. We are very supportive of the RGGI process and look forward to working with the State of Massachusetts as it moves forward with the RGGI rulemaking process.

This memorandum is in response to questions and issues raised at the April 5, 2007 and April 10, 2007 MA GHG stakeholder meetings. We have broken the memo into 6 sections based on the issues and questions raised at the meeting:

A. Transitioning from 7.29 to RGGI:
   1. When should MassDEP stop certifying and verifying RGGI-ineligible MA GHG Credits?
   2. What should be done with unused RGGI-Ineligible MA GHG Credits Once RGGI begins?
   3. How MassDEP will exchange some RGGI-Ineligible MA GHG Credits for RGGI CO2 Allowances

B. MA RGGI Rule Outline
   4. Behind the Meter Exemption and Appropriate size limit
   5. Auction of Allowance

6. Voluntary renewable energy market set-aside allocation

A. Transitioning from 7.29 to RGGI:

1. When should MassDEP stop certifying and verifying RGGI-ineligible MA GHG Credits?

Deadlines proposed by MA DEP for creating MA GHG Credits to use for compliance with 310 CMR 7.29:

For Project Proponents:

- December 31, 2008 for projects to reduce, avoid and/or sequester GHG emissions
- March 31, 2009 to submit an administratively complete application for certification and verification

For Facilities:

- August 31, 2009-deadline for facilities to demonstrate compliance with the 7.29 CO2 emissions standards for 2008

Deadlines for certifying RGGI-ineligible MA GHG Credits:

- December 31, 2012 – Deadline to receive exchangeable GHG Credits for reduced, avoided, or sequestered GHG emissions
- March 31, 2013 – Deadline to submit an administratively complete applications for verification.

Environment Northeast believes that the deadlines for certifying RGGI-ineligible MA GHG credits are too lenient and will only encourage more RGGI-ineligible MA GHG credits to be created specifically to comply with RGGI and not 7.29. Since the deadline to create MA GHG Credits to comply with 7.29 is on December 31, 2008, MassDEP should stop certifying and verifying RGGI-ineligible MA GHG credits soon after RGGI is implemented to protect the credibility of the RGGI program. A deadline of 2010 or 2011 is more reasonable. If the deadline were moved up to December 31, 2011, this would correlate with the end of the first 3 year compliance period

2. What should be done with unused RGGI-Ineligible MA GHG Credits Once RGGI begins?

Environment Northeast is disappointed that RGGI-Ineligible MA GHG Credits will be exchanged for RGGI CO2 allowances at all because MA's RGGI CO2 allowances cap was determined according to emissions from the electric sector. Unlike RGGI offsets which are limited to five specific eligible project types (landfill gas methane, SF6, afforestation, natural gas, oil or propane end use efficiency, and agricultural manure management, MA GHG credits can be created through any project that reduces, avoids, and/or sequesters GHG emissions in accordance with 310 CMR 7.00 Appendix B (7). In addition, this exchange of credits goes against the Governor's stated commitment to auction 100% of allowances.

Setting the caps in each state was a contentious and time-consuming process and other states may be disappointed by MassDEP's proposal to exchange MA GHG credits for RGGI CO2 allowances which can then be sold or used throughout the region. We

believe it must be clear that this exchange does NOT inflate the RGGI cap and that the total RGGI allowances issued by MA will not exceed the number identified in the RGGI MOU.

While we understand MassDEP's proposal to balance the commitments and investments made under 7.29 and achieve the full benefits of RGGI, Environment Northeast is concerned that more RGGI-ineligible MA GHG projects will be developed to take advantage of the exchange of GHG credits for RGGI CO2 allowances. Since GHG credits are exchanged for RGGI CO2 allowances (for free) instead of a generating facility having to buy the RGGI CO2 allowance through an auction process, this could provide facilities with a lower cost supply of allowances than buying RGGI CO2 allowances at auction.

3. How MassDEP will exchange some RGGI-Ineligible MA GHG Credits for RGGI CO2 Allowances

MassDEP has laid out two mechanisms for transferring RGGI-Ineligible MA GHG Credits to RGGI CO2 allowances, option 1: which allows for the annual exchange of 2 GHG Credits for 1 RGGI CO2 allowance or option 2: which sets aside 125,000 MA RGGI CO2 allowances for four years (2009 through 2012) and exchange them for GHG credits at a 1:1 ratio or lower (pro-rata), as constrained by the number of eligible GHG Credits.

Environment Northeast believes that a hybrid approach of both options is preferable. Environment Northeast believes that there should a set cap which limits the amount of MA GHG Credits to be exchanged for RGGI CO2 allowances. This cap should be set immediately (500,000 RGGI allowances over a three year period is not unreasonable) to provide regulatory certainty and to limit the total number of RGGI-Ineligible MA GHG credits exchanged. We also feel that a set annual exchange (from option 1) is preferable although one suggestion we have is to have the exchange ratio vary by year. For instance, in 2009 there could be an exchange ratio of 2 GHG Credits to 1 RGGI CO2 allowance, in 2010: 3 GHG credits to 1 RGGI CO2 allowance, and 2011: 4 GHG credits to 1 RGGI CO2 allowance. We are unclear as to why only option 2 specifies that the exchange would occur after all GHG Credits have been verified, but we think that this verification is necessary for any exchange to occur.

B. MA RGGI Rule Outline

4. Behind the Meter Exemption and Appropriate size limit

Any behind the meter exemptions should be consistent with the MOU and RGGI Model Rule and not exceed 25 MW in size or output to the grid in excess of 10%. Although we support incentives for CHP, the state should not create additional loop holes to RGGI and should look to other policy mechanisms to support CHP.

5. Auction of Allowances

Please refer to Environment Northeast's comments which we submitted on March 19, 2007.

6. Voluntary renewable energy market set-aside allocation

Environment Northeast supports inclusion of the voluntary renewable energy market set-aside allocation. We are supportive of the method discussed for assessing the number of allowances to be retired:

- Quantify the voluntary renewable energy purchases in MA (MWhrs)
- Multiplied by the ISO NE Marginal CO2 emissions rate (lbs Co2/Mwh)/2000
- Yield tons of CO2 allowances retired.

Please refer to Environment Northeast's comments which we submitted on March 19, 2007 for more information.

We appreciate the opportunity to comment on the development of RGGI in Massachusetts. This program is a critical part of the state and region's plan to reduce greenhouse gas emissions.

Please let us know if you have any questions or comments based on these materials.

FirstLight Power Resources

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April 17, 2007

VIA ELECTRONIC DELIVERY
Nicholas.M.Bianco@state.ma.us

Mr. Nicholas M. Bianco
Massachusetts Department of Environmental Protection (DEP)
One Winter Street
Boston, MA 02108

Regarding: ***Comments to April 10, 2007 RGGI Stakeholder Meeting***
Topical Forum #3: Review of Draft MA RGGI Rule

Dear Mr. Bianco:

FirstLight Power Resources, Inc. (FirstLight) owns and operates a number of power generation facilities including the Mt. Tom Generating Station located in Holyoke, MA. FirstLight would like to thank the DEP for the opportunity to present the following comments on the materials presented at the GHG Stakeholder Meeting that occurred on April 10, 2007.

Our comments, which are presented below in more detail, consist of the following:

- To help facilities meet 7.29 obligations the DEP should:
  - Determine now that insufficient GHG offsets exist locally and permit acquisition worldwide to meet 2007 and 2008 obligations
  - Allow surplus 7.29 offsets to be used on pro-rated basis as RGGI allowances for 7.29-affected generators

- To ensure that RGGI achieves its stated objectives and to minimize the increase RGGI will have on electricity prices, the DEP should:
  - Arrange for a RGGI wide auction of allowances
  - Close the auction to only generators that need the allowances
  - Assess a RGGI allowance cost to electricity generated by CO_2 emitting resources and imported from non-RGGI states
  - Eliminate the CO_2 provisions under 7.29 when RGGI becomes effective
  - Expand the definition of RGGI offsets to encourage other forms of CO_2 reduction and to expand the definition of “eligible biomass”

- Not allow exemptions for "behind the meter" generators

Determination of Insufficient GHG Credits in the Immediate Geographic Region

FirstLight reiterates our request that DEP determine now that insufficient projects are available in the immediate geographic region for certification under 310 CMR 7.29 and Appendix B(7).

FirstLight has been unable to locate sufficient offset credits in the immediate geographic region that are eligible for certification under 7.29 to support its 2007 and 2008 compliance needs. The current regulation does not determine if a trigger price that will expand the search area is met until the end of the calendar year. Waiting until year's end will not provide adequate time for us to reach compliance through the purchase or generation of offset credits. Therefore, we ask DEP to make the determination now that there are insufficient offset credits under 7.29 available in the immediate geographic region for purchase for the 2007 and 2008 compliance periods. This determination will open the offset pool to projects located anywhere on earth and certification and verification of CO_2 allowances from any allowance or credit systems, as noted in Appendix B(7). Since GHGs are a global, not a regional issue, CO_2 reductions anywhere contribute equally to the solution.

Transfer MA GHG Credits to RGGI CO_2 Allowances

Unlike other facilities, 7.29-affected facilities will have invested significant financial resources to procure GHG credits to meet 2007 and 2008 obligations. We believe that 7.29 affected facilities that have excess GHG credits should be allowed to trade them for RGGI allowances on a prorated basis and receive value for these real reductions in global CO_2. However, the number of RGGI allowances used for this purpose should be limited to maximize the allowance pool to be auctioned.

The Allowance Auction Process

Massachusetts should encourage and participate in a RGGI Regional Auction to ensure that the price of allowances will be levelized throughout the RGGI states. In fact, FirstLight recommends that the Commonwealth actively support the consistent handling of allowances across all RGGI states (i.e. allowances are auctioned off for the benefit of the respective RGGI states). If some RGGI states elect to auction less than 100% of the allowances, Massachusetts should do the same to ensure that Massachusetts' generators are treated consistently with those they compete with in the electricity markets.

The auction should be a closed auction, open only to the generators that are located in the states participating in the regional auction. If a state does not participate, its generators should not be allowed to participate in the regional auction. CO_2 is unlike SO_2, NOx, Hg, etc. in that there is no technology available today to remove it from the flue gas of fossil-fired generating plants. For pollutants that control technology is available, the price of allowances is effectively capped at the cost of those technologies since generators have

the installation of equipment as an alternative to purchasing allowances. Without available backend technologies to reduce CO_2 emissions, allowances and offsets are the only mechanisms available to generators to enable them to generate. With an insufficient number of allowances, a limit on offsets, and no technology to control CO_2 emissions, prices of the allowances will likely be extremely high. Allowing non-generators who do not have an obligation to produce electricity to participate in the auction will increase the price of the allowances and can lead to disruptions in the physical production of electricity. These high allowance prices will directly increase the prices of electricity that are charged to consumers.

Treatment of Electricity Imports into RGGI States

The absence of a national program will lead to the fact that generators located in RGGI states will face increased costs compared to those in non-RGGI states. This will lead to those non-RGGI state generators running more and exporting their electricity into the RGGI states. As a result, it is possible that the generators in non-RGGI states will emit more CO_2 than would have been emitted by the units in RGGI states whose generation they have displaced. It may also cause generators in RGGI states to shut down, with the accompanying loss of jobs and tax revenue, and leave RGGI states dependent on outside generators to supply needed electricity. To prevent this from happening, the RGGI states need to assess a similar RGGI allowance cost on imported electricity from CO_2 emitting sources located outside the RGGI region. Failure to assess this cost could reverse a significant portion of the CO_2 reductions that would be realized by RGGI.

Eliminate the CO_2 provisions under 7.29 when RGGI Becomes Effective

FirstLight supports DEP's proposal to eliminate the CO_2 rate and cap limits under 310 CMR 7.29 when RGGI becomes effective on January 1, 2009. The continuation of either the cap or rate provision would unfairly penalize Massachusetts' generators in comparison to other generators inside and outside the RGGI region. It may also cause generators in Massachusetts to shut down, with the accompanying loss of jobs and tax revenue, and leave Massachusetts dependent on outside generators to supply needed electricity. Continuation with a rate or cap program at the state level would only introduce additional costs to generators in the Commonwealth which will be reflected in the price of electricity to ratepayers.

Expand the RGGI Offset Categories

One of the benefits of a cap and trade system is the unleashing of creative solutions to control CO_2 emissions. Limiting the technologies that are eligible for RGGI offset credit defeats this valuable benefit. Instead of identifying a few known technologies, the RGGI states need to create a mechanism where new technologies can be evaluated and approved as they can demonstrate effective CO_2 control.

For example, carbon sequestration, forestry management, efficiency upgrades at existing fossil-fueled plants, and efficiency upgrades at hydro facilities are valid CO_2 reduction techniques and should be eligible for RGGI offset qualification.

Although these categories are not included in the RGGI Model Rule definition, states do have the discretion to modify their regulations to include other source categories.

Clarify and Expand the Biomass Definition

We urge the DEP to clarify and expand the definition of biomass to include any renewable fuel or resource so that generators will have incentive to augment current fossil fuel use with renewable resources. The definition of eligible biomass should not be limited to burning wood products only.

Additionally, FirstLight requests that DEP clarify whether generators who convert more than 50% of their fuel to renewables after the compliance date of January 1, 2005 receive the biomass exemption from RGGI. This incentive would provide great encouragement to fossil fuel fired generators to invest in such a conversion.

Eliminate the Behind the Meter Exemption

MA DEP is proposing to exempt generators who supply less than 10% of their electrical output to the grid. FirstLight believes that this exemption would benefit a class of generators that often operate less efficiently and thus generate more pollution as compared to larger central power generating units. FirstLight understands that this exemption is not being implemented by all RGGI states and would further disadvantage Massachusetts facilities if implemented.

We thank you for the opportunity to present these comments. We encourage the DEP to accept our suggestions which we believe will help RGGI achieve its GHG objectives and limit the increases in prices of electricity to be borne by ratepayers due to RGGI.

If you have any questions on these comments, please call me at (860) 810-1834.

Sincerely,

/s/

James A. Ginnetti
Vice President of External Affairs

INTERNATIONAL PAPER PRODUCTS CORPORATION

Manufacturing Biomass Fuel and Recycling Materials

98 Sgt TM Dion Way
Westfield, MA 01085

Nicholas.M.Bianco
MassDEP/BWP
One Winter St
Boston, MA 02108

April 17, 2007

Dear Mr. Bianco:

International Paper Products Corp. (IPP) of Westfield, MA welcomes this opportunity to comment on Massachusetts' participation in the Regional Greenhouse Gas Initiative (RGGI).

IPP is in support of efforts which create incentives for the use of biomass fuels for energy generation, especially when the biomass is co-fired with fossil fuels. The current definition of biomass within the Draft Model Rule should be modified to reflect marketplace factors and technology developments. Specifically, manufacturing a biomass fuel from "pre-sorted", non-recyclable materials which would otherwise be landfilled (thus contributing to Greenhouse Gas- GHG generation) and providing the technology to "fire" that fuel at high volumes, efficiently and cleanly in a combustion furnace reflect marketplace realities that can be used today to create real GHG emission avoidance.

Biomass - Definition

We urge the MADEP to include in the definition of "Eligible Biomass", an allowance for manufactured or pre-engineered fuels with a cellulosic content (as in IPP's Enviro-Fuelcubes®). There are sound legal reasons for the RGGI SWG to consider this request. IPP submits that fuel **manufactured** from **non-recyclable** paper, cellulose, rayon, or other related biomass material feedstock (not derived from Construction and Demolition - C&D sources), which can be approved for use as a solid fuel in permitted facilities, and which is also zero mercury, low sulfur, low chlorine, low heavy metal composition should be included in the definition of Eligible Biomass. Each ton of fuel made from this non-recyclable biomass feedstock and burned for energy is a ton of landfill capacity avoided and creates a "double net" benefit for GHG reductions by not becoming a substrate for GHG formation.

The term "biomass" is defined broadly as a matter of federal law. See Section 45 of the Internal Revenue Code (biomass defined as "any solid, non-hazardous cellulosic waste material which is segregated from other waste materials" ***not*** including "paper

which is commonly recycled."); 42 USC Section 8802 (biomass defined as "any organic matter which is available on a renewable basis, including agricultural crops and agricultural wastes and residues, wood and wood wastes and residues, animal wastes, municipal wastes, and aquatic plants.").

In the case of the Massachusetts Division of Energy Resources (MADOER) Renewable Energy Portfolio Standard (RPS), the statutory basis is the **Restructuring Act**, specifically **Section 11F of Chapter 25A**. The **Act** defines a "renewable energy generating source" to include "low emission, advanced *biomass* power conversion technologies, *such as gasification using* ***such*** *biomass fuels as…organic refuse-derived fuel.*" Chapter 25A, Section11F(b) (emphasis added). Nothing in the **Act** suggests that the list of fuels encompassed therein is meant to be exhaustive.

When the MADOER adopted the RPS, it provided a definition of "eligible biomass fuel" and limited the universe of qualifying fuel. Based on that definition, IPP's fuel would be considered "organic refuse-derived fuel." Since adoption of that rule, the MADEP and MADOER have broadly defined the term "organic refuse-derived" to include "non-organic" components without attempting to quantify the portion that is "non-organic" and without deeming such percentage to be considered "ineligible" and thus subject to the co-firing provision of 225 CMR 14.05(3).

IPP has been informed by the MADOER, that pending review of a formal request, the MADOER would be likely to rule that fifty percent of our manufactured fuel product conforms to their "Eligible Biomass" definition.

Biomass Co-Firing or Sole Firing

By expanding the "Eligible Biomass" definition to include manufactured fuels from non-recyclable papers and similar materials as discussed herein, MADEP can promote an excellent opportunity to voluntarily divert an enormous source of energy from landfills. When this fuel is processed and fired using the appropriate technology, emissions benefits are seen and net heat rates are not compromised. IPP has spent over 8 years developing and patenting its "Dedensification and Delivery Unit (DDU)" technology which is designed to fire any solid biomass fuel into a co-fired or sole-fired combustion unit using minimal amounts of transportation air. Because the amount of air used to transport the fuel is so low in comparison to existing solid biomass firing technology, the combustion unit does not have to compromise on energy output in order to make use of biomass fuel.

Thank you for your consideration of our comments.

Sincerely,

International Paper Products Corporation

Mark A. Dupuis, President

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April 17, 2007

Mr. Nicholas Bianco
Massachusetts Department of Environmental Protection
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Boston, MA 02108

Subject: **Comments on the CO2 RGGI Model Rule**

Presented below are a few comments on the RGGI Model Rule.

I. General

1. Classification of CO2 Reduction Projects as "Pollution Prevention" Projects: The federal New Source Review rule includes an exemption for "Pollution Prevention" projects, which is directed particularly at electric generating facilities. This exclusion has been previously adopted by the MADEP, to exempt NOx control projects from 310 CMR 7.02 permitting, if such projects were implemented to achieve compliance with NOx RACT or NOx Allowance emission restrictions. This same type of exemption should be extended to CO2 reduction projects, now that CO2 is considered a regulated pollutant. Such projects might include:
   - Energy efficiency projects
   - Fuel switching to a biodiesel fuel
   - CO2 capture projects

2. Output Reports Section XX-8.8: the RGGI Model rule makes provision for annual Mw Generation Output Reporting by budget sources, if needed to support the allocation of CO2 Allowances. However, if MADEP determines that all CO2 allowances will be auctioned, the Massachusetts RGGI rule should not require Mw Output Reporting, as it will not be needed to support the allowance allocation process, and Net Output can entail significant effort to assemble, as seen in the NOx Allowance Program.

   On the hand, if the MADEP intends to directly allocate a portion of the RGGI Allowances, it is suggested that gross, rather than net, Output data be used for this purpose, as gross Mw data is readily available from EDRs. As noted above, compilation of Net Output data may be complicated and time consuming, at least for certain sources.

3. Key Regulatory Submittal Requirements and Deadlines: It would be helpful if key regulatory submittal requirements and deadlines for RGGI were clarified. These could be clarified in a guidance document, or the MADEP RGGI rule, as felt most applicable. In particular:
   - When does the AAR Representative Form have to be submitted?
   - Will a separate CO2 Allowance Program Permit Form have to be submitted, or will the Operating Permit simply be modified to include CO2 Allowance Program provisions? If a separate Permit Form submittal is required, it seems a little unusual that the submittal

date is the same as the program start date; shouldn't the Permit Application submittal date precede the Program Start date?

- Will the quarterly EDR reporting of CO2 emissions have to be submitted separately for the CO2 Allowance Program, or will the current EDR submittal for the Acid Rain/NOx Budget Program be sufficient?

II. **Definitions**

1. Definition of Eligible Biomass: it is suggested that the definition of eligible biomass be expanded to include human waste (sludge), unless "animal waste" is felt to encompass human waste. Various types of sludge incineration projects have been proposed in the past, and these should be supported to the extent they generate electricity and satisfy other applicable environmental regulations, as a means of reducing fossil fuel generated CO2 emissions.

2. Definition of Consumer Benefit or Strategic Energy Purpose Account: it is suggested that the definition of Consumer Benefit or Strategic Energy Purpose Account be modified slightly in two ways: (a) the word "carbon" should be changed to "carbon dioxide", as " carbon emissions abatement technologies" could be construed to include control projects designed to reduce CO and/or PM (which contains unburned carbon) emissions; (b) the type of CO2 projects eligible for funding should be expanded to include CO2 re-use projects, CO2 capture projects, and any other projects that can significantly reduce CO2 releases to the atmosphere from a fossil fuel combustion process. In addition, it is suggested that the option to use Consumer Benefit/ Strategic Energy Purpose monies to offset administrative costs be eliminated from this definition. It is recognized that administrative costs are a legitimate use of these funds, however the public perception would not be positive if it were believed a significant fraction of these monies were used to cover overhead costs of the program.

3. Definition of Fossil Fuel Fired: the definition of a fossil fuel fired unit, as one that combusts fossil fuel to generate > 5% of its annual heat, is too stringent. Requiring units that may combust biomass fuels for 95% of their heat input to participate in the RGGI Program imposes a significant administrative/regulatory burden on a source type that should be encouraged, and would provide minimum CO2 reduction benefits

   It is recognized that MADEP might not be able to alter the definition of "fossil fuel fired". In that case, two options are suggested to help avoid borderline "fossil fuel" units from being inadvertently drawn into the RGGI program due to an anomalous year of relatively higher fossil fuel firing: (a) revise the MADEP RGGI rule applicability criteria so that the designation of a boiler as a "fossil fuel fired" unit is determined based on 3-year average fossil fuel usage (i.e. fossil fuel firing must be responsible for > 5% of a unit's heat input on average over a 3-year period); this criteria is similar to that applied under Part 75 to designate "peaking" units; and/or (b) the MADEP RGGI rule might allow units that fall below the 5% threshold for two years in succession to opt-out of the program.

III. Compliance Certification Report – Section XX-4.1

1. Eliminate the Compliance Certification Report: It is suggested that the Compliance Certification Report described in Section XX-4.1 be eliminated from the MADEP RGGI rule, as it serves no functional purpose. The AAR certifies each EDR submittal, as well as the Monitoring Plan, Output Reports, Petitions, and all other CO2 Allowance Program submittals. The Compliance Certification Report is, therefore, redundant. The Acid Rain

Program has recently decided to eliminate this submittal, and it is suggested the CO2 Allowance Program do the same

IV. Early Reduction Allowances (ERA) - Section XX-5.3

1. Federal Enforceability of Early Reductions: The MADEP should clarify in the RGGI rule, or supplemental guidance, that no federally enforceable permit limit is required for CO2 emission reductions to qualify as Early Reduction Allowances (ERAs) under the RGGI Program. For example, if a source that is capable of dual fuel firing (coal and gas or oil and gas) combusts relatively more gas over the Early Reduction (ER) period as compared to the Baseline period, resulting in a lower average CO2/Mwh emission rate during the ER period, then, I believe the source should qualify to receive ERAs. I do not believe a source would have to accept a permit condition requiring that this higher gas usage be continued indefinitely beyond the ER period. Is that understanding correct?

   The MADEP RGGI rule, or supplemental MADEP guidance, should further clarify that it is not necessary that a source implement hardware changes to qualify to receive ERAs. It should be made clear that fuel switching or any other operational modifications allowed under an existing permit, is an acceptable means for reducing the CO2 emission rate (CO2/MwH), in order to qualify for ERAs, under Section XX-5.3 of the Model Rule. In other words, there is no requirement that ERA reductions be achieved thru hardware control improvements, as is sometimes the case when trying to qualify for DERs.

2. ERAs and Biomass Fuel: In calculating ERAs, CO2 emissions due to the firing of biomass fuels should be excluded in the determination of average CO2 (lb/MwH) emission rates over the ER period, in the same manner as they are excluded when determining CO2 emissions requiring Allowance offset during the RGGI Control periods (i.e. Allowances do not need to be retired to cover CO2 emissions generated by combustion of biomass fuels).

V. Monitoring – Section XX-8

1. Initial Reporting Date for New Units: there appears to be an inconsistency in the specification of the Start Date for Emission Reporting by new Units. In particular:

   - Section 8-1(b) and 8-1.(b)(2)(ii) indicates that for new Units, the operator shall "**report** monitoring system data from the earlier of: (a) 90 operating days after the date of commencement of commercial operation or (b) 180 calendar days after the date of commencement of commercial operation
   - However, Section 8-5(d)(1) indicates that reporting for new Units shall begin at the earlier of: (a) the provisional CEMS Certification date; or (b) the deadline dates specified in Section 8.1(b)(2).

   Note that in practice, the date of provisional Certification typically precedes the Certification Deadline dates listed in Section 8.1.b., i.e. CEMS certification testing is completed before regulatory deadlines expire.

   It would be helpful if MADEP would clarify the initial reporting dates for new Units, in order to avoid any ambiguities and resolve apparent inconsistencies between Section 8-1(b) and 8-5(d), either in the rule or supplemental guidance. It is assumed that the dates specified in Section 8-5(d)(1) are the intended reporting start dates, but verification of that assumption would be helpful.

2. Exemption from Initial Certification for NOx Budget only Sources: Section XX-8.2(a) indicates that a CO_2 budget unit monitoring system is exempt from Initial Certification if the "monitoring system has been previously certified in accordance with 40 CFR 75".

   Currently, there are a several NOx Budget only (non-Acid Rain) units in Massachusetts, all of which have been certified under 40 CFR 75, but none of which monitor CO_2 emissions. As far as I am aware, however, the monitoring systems serving these units could be upgraded to determine CO_2 emissions through DAHS revisions alone; no hardware modifications would be required to give these CEMS CO_2 monitoring capability.

   Under Part 75, a DAHS Verification must be performed following any revisions to DAHS core formulas or missing data procedures. However, DAHS Verification results do not have to be submitted to EPA, and these checks are not considered a "re-certification" event as far as I am aware.

   There is some ambiguity therefore whether the minor DAHS revisions required to add CO2 emissions reporting capability to a NOx Budget CEMS would void the exemption under Section XX-8.2(a), for these NOx Budget only units.

   It is suggested therefore that MADEP clarify, either in the RGGI regulation or supplemental guidance, that if a monitoring system was certified under Part 75, and would otherwise be exempt from Initial Certification under the RGGI rule, the implementation of DAHS revisions to add formulas for the calculation of CO2 emissions, do not abrogate this exemption.

VI. Co-Fired Biomass Fuels

1. Frequency of Sampling: Section XX-8.7(a) of the RGGI Model rule indicates that units co-firing eligible biomass shall provide data each calendar quarter: (a) on the chemical composition of the biomass fuel; (b) the moisture content of the biomass fuel, and implicitly (c) on the heat content of the biomass fuel, as well as the amount of biomass fuel fired. However the rule does not seem to specify either: (a) the frequency with which biomasss sampling must be conducted; or (b) the source of this analysis data. It is suggested: (a) that the fuel supplier should be allowed to serve as the source of this biomass analysis data as an alternative to on-site sampling; and (b) that the frequency of sampling requirements reflect the expected variability in analysis values. Moreover, in order not to discourage use of biofuels, sampling frequency should be limited to no more than once a month, and preferably no more than once per quarter, unless initial data values show high variability.

2. Calculation of the CO2 Emissions Attributable to Liquid Biomass Fuels: Section XX-8.7(b) of the RGGI Model rule details calculation procedures to determine the as-fired CO2 emissions produced from biomass firing (biomass emissions do not have to be offset by CO2 Allowances).

   However, this Section only provides calculation procedures for solid and gaseous biomass fuels, no procedure is specified for determining CO2 emissions from biodiesel or any other liquid biomass fuel. Liquid biomass fuels should qualify for the same exemption as solid or gaseous biomass fuels under the definition of "eligible biomass"; and therefore it would seem a calculation should be included in Section XX-8.7(b) to determine exempt CO2 emissions resulting from combustion of such biofuels.

VII. Offset Projects - Section XX-10.3

1. Expand the Scope of Offset Projects: the scope of Offset Projects should be substantially expanded. The existing CO2 RGGI Program as currently constituted is unlikely to have any effect on the amount of coal combusted in the state, as coal will continue to be the cheapest source of electricity. Moreover, so long as the cost of natural gas remains high, it is unlikely that existing electrical generation by oil fired units will be significantly displaced by gas units. Coal and to a lesser extent oil are the largest contributors to CO2 emissions in the electrical generation sector.

   Offsets, then, offer the most effective, available means, at present, to counter the impact of CO2 emissions from coal and oil fired electrical generation plants.

   As a minimum it is suggested that that the category of projects eligible to receive offsets from "reduction or avoidance of CO2 emissions from natural gas, oil, or propane end use combustion" be expanded to include industrial facilities. Currently only commercial and residential projects are apparently eligible to receive Offset Allowances from fossil fuel end use improvements. Industrial boilers are generally larger than commercial boilers, and therefore the potential benefits could be significantly greater from the enhancement of efficiencies or the implementation of fuel switching on these boilers.

2. Offset Calculation Procedure for Fuel Switching Projects: One of the categories of allowed Offset Projects is "reduction or avoidance of CO2 emissions from natural gas, oil, or propane end use combustion". And one of the allowed projects under this Offset category is fuel switching to a less carbon intensive fuel or a biofuel (see XX-10.3(d)(1)(g).

   However, it does not appear that the formula specified for calculating CO2 emission reductions from fossil fuel end use improvement projects properly accounts for the benefits provided by fuel switching. CO2 reductions are calculated using a two stage methodology (see Section XX-10.3(d)(4)

   - First Energy Savings are determined
   - Then a CO2 emission factor (CO2/MMBtu) is applied to this Energy Savings value to determine CO2 reductions achieved by the project

   However, for fuel switching projects CO2 reductions largely result from an improved (lower) CO2 emission factor rather than from direct energy savings. In practice, a fuel switching project may not be accompanied by any energy savings, in which case application of the "Emission Reduction" formula specified in XX-10.3(d)(1)(g) would result zero (0) Offset credits. This Emission Reduction formula should be modified, or a separate a formula developed, to properly account for the CO2 reduction benefits achieved by fuel switching thru the lowering of the CO2 emission factor.

   Federal Enforceability of CO2 Offset Projects: The MADEP should clarify in the RGGI rule, or in supplemental guidance, that CO2 emission reductions achieved by an Offset project are not required to be included in a federally enforceable permit.

Thank you for the opportunity to provide these comments.

Sincerely:
Bob Machaver, RJ Associates

Testimony on the MA RGGI Rule
Submitted by
The Nature Conservancy

Massachusetts Department of Environmental Protection
Massachusetts Division of Energy Resources
April 12, 2007

Thank you for the opportunity to submit written comments on the Massachusetts Department of Environmental Protection's (MassDEP's) and Massachusetts Division of Energy Resources' (DOER) development of regulations relative to the Regional Greenhouse Gas Initiative (RGGI). The Conservancy wishes to thank the Administration for its leadership and vision on climate change from Governor Deval Patrick, Secretary Ian Bowles and Commissioners Arleen O'Donnell and David O'Connor.

The Nature Conservancy is a nonprofit conservation organization. We have 1.1 million members, over 32,000 in Massachusetts. Our mission is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. With the support of the government and local partners, we have preserved over 23,000 acres of land across Massachusetts.

The Conservancy strongly supports Massachusetts' efforts to join, sign and implement RGGI. The Conservancy supports the greenhouse gas emissions reductions that will be achieved through this cap and trade mechanism established under the RGGI Memorandum of Understanding (MOU) and detailed in the RGGI Model Rule. The Conservancy also supports a 100 percent auction of RGGI allowances under which the majority of allowance auction proceeds would fund energy efficiency and conservation and renewable energy development.

We also recognize that no matter how much greenhouse gas emissions the Commonwealth reduces through RGGI and other efforts, scientists expect climate change to affect the earth dramatically for the next one hundred years. We advise the MassDEP and DOER to dedicate a small portion, up to ten percent, of the funds generated form auctioning RGGI allowances, for adaptation. Adaptation means to protect the most vulnerable habitats and species by providing opportunities for them to adapt to the impacts of climate change through innovative conservation actions.

Natural systems can only survive climate change impacts if they have the opportunity to adapt. Most plant and animals species adapt by migrating to areas that provide their ideal habitat. Natural areas must be connected and provide continuity among habitats for

plants and animals to move and migrate. During previous changes in the earth's climate, plant and animal species had the opportunity to move and migrate relatively freely without human communities and related infrastructure hindering their progress. Given these barriers, we must plan thoughtfully for adaptation. More specifically, adaptation funding should focus on:

- identifying and monitoring for early detection of impacts;
- developing adaptation strategies to minimize damage;
- supporting projects to restore and protect state resources; and,
- integrating climate change adaptation requirements into state plans.

There is board-based support for addressing climate change through adaptation. By allocating RGGI funds to adaptation, Massachusetts would mirror:

- Recommendations in the Commonwealth's Climate Action Plan (2004) that support natural resource protection and management to increase the capacity of vulnerable ecosystems to adapt to the growing impacts of climate change; and,
- Provisions being put forth in federal legislation that could serve to potentially leverage any state dedicated climate change adaptation funds.

Funding should be directed to a trust or an appropriate state environmental agency with natural resources management experience that would fund meaningful support for adaptation. The decision-making authority must have knowledge and experience in natural resource conservation practices to make informed funding decisions, set priorities, and to get results and demonstrate value. Experienced natural resource conservation stakeholders should have a role in state agency advisory boards and making recommendations on RGGI funding issues.

The Nature Conservancy's science staff, which specialize in freshwater, forest, and coastal and marine biodiversity conservation, are available to work with Committee and regulatory staff to define how reasonable siting criteria might apply to proposed projects within a limited scope throughout Massachusetts. We would appreciate the opportunity to talk further about these important policies.

I would be happy to answer any questions or follow up and meet and discuss our concerns and recommendations. Thank you again for the opportunity to submit comments on this important legislation. If you have questions, please contact Steve Long, Government Relations Associate at 617-227-7017 ext. 313 or slong@tnc.org.

VIA EMAIL: Nicholas.M.Bianco@state.ma.us

Nicholas Bianco
Commonwealth of Massachusetts
Department of Environmental Protection
One Winter Street, 8th Floor
Boston, MA 02108.

Re: Massachusetts Department of Environmental Protection's Implementation of the Regional Greenhouse Gas Initiative.

Dear Mr. Bianco:

The New England Power Generators ("NEPGA") is pleased to provide the following comments to the Massachusetts Department of Environmental Protection ("MassDEP") regarding the implementation of the Regional Greenhouse Gas Initiative ("RGGI") in the Commonwealth of Massachusetts[10]. NEPGA is the largest trade association representing competitive electric generating companies in New England. NEPGA's member companies represent over 20,000 megawatts of generating capacity in all six states of the region and a broad array of fuel types. NEPGA's mission is to promote sound energy policies and, to that end, NEPGA supports the development of environmental programs that rely to the maximum extent possible on market-based compliance mechanisms to strike the proper balance among environmental, economic development and reliability needs.

NEPGA believes a reasonable, well developed program to reduce greenhouse gas emissions is important for both the environment and for business certainty. We believe the most effective way to achieve real greenhouse gas reductions is to develop a national, economy-wide program in concert with international efforts. A single state or even

[10] All of the views expressed in these comments do not necessarily represent the positions of each of NEPGA's members. In addition, nothing in these comments should be deemed to waive any rights that NEPGA or any of its members may have to challenge the procedural or substantive legality of the proposed regulation.

regional program, by virtue of the small percentage of global emissions from the limited geographic size, will create economic dislocations due to the uneven regulatory environment, and cannot make significant impacts to the overall goal of reducing the amount of global greenhouse gases. [Note that greenhouse gases from generators within the RGGI region are equal to only 5% of national emissions.] That being said, we appreciate Massachusetts' efforts to develop a program that can be used as a national model and the opportunity to be a part of the discussions.

In the development of a greenhouse gas reduction program it is imperative to weigh the need to reduce emissions with the need for reliable electricity at a reasonable cost. One must look at what has already been done to reduce emissions and determine what more can reasonably be done given current technology, what efforts can be made to develop new technology, and what mechanisms (such as the use of offsets) can be used for compliance in the interim.

Massachusetts' electric generating facilities have already improved their performance significantly. Since 1997, electricity generation has increased dramatically to meet increases in demand. However, since the fuel source for new generation has been primarily natural gas, the rate of CO2 emissions (in lbs/mwh) has declined substantially to a rate that is lower than the national average. Care must be taken in program development to recognize these efforts by way of early reduction credits since much of the 'low hanging fruit' has already been picked. Further reductions will come at higher prices. According to the Energy Information Administration, Massachusetts (and virtually the entire proposed RGGI region) has CO2 emissions per megawatt-hour of energy that are below the national average. As a result, achieving incremental reductions will likely be more expensive in Massachusetts and the RGGI region than in other parts of the United States or other parts of the world. The options for achieving reductions and offsets should not be limited, to enable parties subject to RGGI limits to find the most cost-effective offsets.

Also very important to a well developed program are region-specific issues such as infrastructure, growth rates, renewable energy opportunities (or lack thereof), and other reliability issues. A flexible compliance program will result in least-cost options with net global improvements.

Notwithstanding NEPGA's preference for an economy-wide national program, we offer these suggestions in developing a greenhouse reduction program:

1. **Prior to implementing a CO_2 reduction initiative, the MassDEP should rely on current and reliable information regarding the anticipated impacts of a program to ensure that there are no adverse affects on electricity supply and costs.**

Even the best of models rely on uncertain forecast assumptions and will not accurately reflect changes in technology, the volatility of, and changes to, fuel prices, and other external factors. The assumptions used in models must be based upon the most

current and accurate data available. However, MassDEP is analyzing the affects on consumer prices created by the RGGI program by using a DOER study[11] that is outdated by at least two years. The study also relies on significant energy efficiency gains without any substantive analysis of the availability of those gains, the costs associated with them, or the obvious diminishing returns on more aggressive efficiency gains.

The RGGI website itself has posted new data with updated numbers that indicate the previous study's numbers are incorrect.[12] The Commonwealth should, at minimum, use current, relevant information – if not intentionally conservative estimates - when predicting the outcomes and impacts of this initiative. The use of valid data will provide MassDEP with timely, solid and objective studies regarding existing and potential markets and customers, thereby minimizing risk and significantly improving Massachusetts' chances of success with the program. NEPGA urges Massachusetts to review all modeling assumptions carefully to reduce the degree to which results may be skewed, to fully understand the possible range of the results, and to avoid 'over-selling' the potential benefits.

2. What will be the effects of RGGI on Massachusetts?

The primary means by which RGGI might affect the Massachusetts economy is through increased retail prices for residential, commercial and industrial electricity. However, as indicated above, the existence or extent of price impacts is largely unknown. What is certain is that if there is an increase in electricity costs, and a corresponding increase in the cost of doing business in Massachusetts, the state's economy will suffer. It is also possible that necessary business decisions by generators, resulting from price differences caused by leakage and its effect on revenue, may affect reliability. The full impact on cost and reliability of any CO_2 reduction program should be fully understood prior to the implementation of regulations. NEPGA urges Massachusetts to conduct state-specific modeling using reasonable assumptions as previously discussed.

3. What is an appropriate method for CO2 allowances to reach regulated entities?

The RGGI Model Rule indicated a minimum of 25% of allowances must be set aside to fund the Consumer Benefit or Strategic Energy Purpose Account. The modeling that was conducted at the regional level assumed *only* 25% was set aside and the remainder was available to generators at no cost. MassDEP has indicated a preference towards a one hundred percent auction. NEPGA members have significant reservations about such an approach, and without an impact analysis of the specific program details we are currently unable to support a full auction approach.

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[11] *The Impact of Energy Efficiency Measures Integrated with the RGGI Policy on Residential, Commercial and Industrial Customer Consumption and Bills, Department of Revenue, 2005.*

[12] http://www.rggi.org/docs/referencecase_10_11_06.xls

NEPGA urges Massachusetts to conduct modeling on a regional level, in coordination with other states, to determine the effects of auctioning 100% of allowances – again, with careful attention to the modeling assumptions. Further, we urge state-specific results from this modeling to determine effects on issues such as capital investment in electrical infrastructure, viability of existing and future generation, increased leakage and to the overall Massachusetts economy.

4. How should the proceeds of an emission auction be used to facilitate the goals of a CO2 reduction program?

There is overwhelming and understandable interest from non-market participants in receiving the revenue generated from an allowance auction. To achieve the goals of the program[13], the distribution of funds from the Consumer Benefit and Strategic Energy Purpose Fund must be made deliberately and wisely to projects and for efforts that actually result in reductions of greenhouse gases. Given the very limited compliance options offered by the proposed program, and the unavailability of back-end emission control technologies for CO2 emissions, many generating units that are essential for electric reliability will unavoidably be forced to curtail operations or shut down completely unless new technologies or options become available as a result of the Fund's projects. In developing the details of the usage of funds NEPGA asks the following questions be answered:

- Can emission credit auction proceeds be used to increase efficiencies at power plants so that actual greenhouse gases are reduced?
- Can emission credit auction proceeds be used for funding capital improvement projects that lead to wholesale efficiencies that have a much broader impact than just CO_2 reductions?
- Will the state attempt to defray consumer impacts by allowing an auction system that incorporates a generator "right-of-first-refusal" provision? (We urge, as a specific result of the aforementioned modeling, to determine what effect, if any, purchases of allowances by non-generators will have on the allowance market.)
- How much of the auction proceeds should be directed to consumers to mitigate for electric rate impacts?[14]

5. What effect will the availability of emission offsets have on marginal units within the dispatch curve?

The unpredictable nature and costs of purchasing auction credits on the spot market could have the unintended adverse effect of curtailing some of the marginal

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[13] The purpose of the RGGI program is "to stabilize and then reduce anthropogenic emissions of Co2, greenhouse gas, from CO2 budget sources **in an economically efficient manner**." RGGI Model Rule, §XX-1.1 (emphasis added)

[14] Paragraph G of the RGGI MOU dated December 20, 2005 states that "Consumer benefit or strategic energy purposes include the use of the allowances to … directly mitigate electricity ratepayer impacts…."

generating facilities in the Commonwealth. While base load units may be able to purchase credits based upon the relative certainty of a high capacity factor, more marginal units will be forced to take speculative positions to ensure compliance in the event of dispatch. Marginal units will be at risk for allowance costs, which will translate to higher dispatch costs. Purchasing allowances in advance will subject the generator to the risk of selling unused allowances, potentially at a loss, while waiting and relying on purchasing credits in arrears requires generators to estimate the allowance cost and include it in its market dispatch price bids. The assumption that allowance costs can be passed onto consumers by all generators, dollar-for-dollar, is simply untrue for more marginal units. These more marginal units may be units that contain a fuel source typically favored by emissions regulators.

6. How would the RGGI program be implemented in a manner consistent with other regional or global CO2 reduction programs?

NEPGA is concerned that inadequate consideration has been given to the coordination of RGGI and other CO_2 reduction initiatives, specifically the Kyoto Protocol signed by the Canadian government on behalf of the Maritime Provinces. Of particular interest are the inconsistencies of criteria for qualifying projects under each program and the ability to trade offsets within the parameters of those programs. The global efforts being undertaken by numerous jurisdictions will inevitably affect the price and availability of offsets for the individual program participants, and have an undetermined corresponding affect on electric reliability in those areas. These unknown affects seriously question the prudence of implementing regional programs, as stated earlier.

7. What purpose does the limitation of use of offsets for compliance and the restrictions on geographic location of offset projects serve?

As written, the Model Rule limits the use of offsets for compliance to 3.3% of a generator's obligation. It is not clear why this limitation exists. As was presented early in the RGGI proceedings, it is a fact that CO2 emissions mix globally within one month of the emission. Therefore, a ton of greenhouse gas emissions avoided or removed any where is the world by whatever means provides the same result as a ton avoided or removed from within the RGGI states. In many cases, that cost of avoidance or removal can be significantly less in geographic locations more amenable to certain types of projects. For example, it may not be feasible to plant three million trees on a parcel somewhere in Massachusetts but that opportunity may well be a low-cost option in South America. The net result is the same to the environment but at a much lower cost, thereby meeting RGGI's goal of reducing emissions in an economically responsible manner.

8. What impact will leakage have on the overall success of the RGGI program?

The final report of the Leakage Working Group is not due until December 2007. The results may show a significant impact upon desired overall environmental improvements because of leakage. Until the results are released, and the results analyzed, NEPGA believes it would be unwise to develop a regional program, and even more so, a state

program. If the cost of compliance to RGGI state consumers is greater than the net environmental benefit we believe state efforts would be better spent in working with other states on a federal level for an economy-wide national program.

9. What provisions will be included to sunset the state's RGGI program upon implementation of a national greenhouse gas program?

The development of the RGGI program was intended to be a model for a national program. NEPGA believes the efforts of RGGI have assisted in furthering the national discussion and that national legislation will be enacted in the near future. In order to not disadvantage the economy of the Northeast, and particularly Massachusetts, we believe any state program must include a sunset provision in which the state program will be completely replaced by a federal program upon its implementation so as to not require generators to comply with two different programs.

For the reasons stated herein, NEPGA requests that MassDEP carefully consider our requests and comments in its decision to draft a state RGGI program. If a program is drafted, we would ask MassDEP to conduct state-specific stakeholder meetings to facilitate a clear understanding of the impacts of such a program. Massachusetts is currently benefiting from the most aggressive CO2 regulations in the nation[15], and steps to impose further restrictions must be carefully considered.

Thank you for the opportunity to comment. We look forward to continuing to participate in this process.

Respectfully submitted,

Angela O'Connor
President
New England Power Generators

[6] "Emission Standards for Power Plants" published on May 11, 2001, at 310 CMR 7.29.

May 2, 2007

Via Mail and Email Nicholas.M.Bianco@state.ma.us
Mr. Nicholas Bianco
Massachusetts Department of Environmental Protection
Bureau of Waste Protection
One Winter Street
Boston, MA 02108

SUBJECT: PEABODY MUNICIPAL LIGHT PLANT COMMENTS CONCERNING MA RGGI AUCTION PROCESS

Dear Mr. Bianco:

Thank you for this opportunity to provide comments concerning the Massachusetts Regional Greenhouse Gas Initiative (RGGI) Auction Process that was presented at the March 12, 2007 Stakeholder Group Meeting in Boston, Massachusetts.

Peabody Municipal Light Plant (PMLP) is an autonomous sub-division of the City of Peabody and is organized under, and operated pursuant to, state statute (G.L. c. 164). Like the Braintree Electric Light Department (BELD) and the Taunton Municipal Lighting Plant (TMLP), PMLP is a public power utility that operates to provide least cost reliable service to the communities of Peabody and South Lynnfield. Under M.G.L. c. 164, PMLP's rates are set in accordance with a formula to cover its cost of production and depreciation expense. PMLP does not have shareholders and does not operate as a profit-making entity, but rather, PMLP returns excess revenues that are above our cost of doing business back to the ratepayer.

PMLP owns and operates Waters River Station in Peabody, Massachusetts, which houses two electric generator units one of which is > 25 MW. The primary function of the Waters River generators is to help sustain the electric grid serving our section of Massachusetts. This is accomplished when ISO New England, the agency designated to ensure the constant availability of electricity in New England, calls upon Peabody to run its generators. Therefore, it is critical that CO_2 allowances be available to PMLP so that we can insure Waters River Station can operate.

We share the concerns of BELD and TMLP that if 100% of the CO_2 allowances are auctioned, then allowances may not be available to PMLP or if available the cost may be

excessive. The allowance allocation process should ensure there are adequate allowances provided to municipalities during the first few years of the program to support our transition to this dramatically different generating environment. The purchase of adequate allocations to support unit operation at Waters River Station represents a large expenditure of money for our organization, especially if these expenditures had to be made well in advance of their need for operational use.

The units at Waters River Station operate on a dispatch basis. Since usage varies from year-to-year and is not easily forecasted, it would be very difficult for PMLP to determine the appropriate level of allowances needed to support unit operations.

PMLP supports the proposals offered by TMLP that would help insure adequate allowances to Municipalities at reasonable prices. In particular, PMLP supports:

1. A set-aside for municipal generating facilities similar to that provided under 310 CMR 7.28 NO_x allowance program for a transition period.
2. Limiting auction participation during the first few years of the program to Massachusetts (MA) generators that are in the RGGI program (i.e., a "closed" auction within the state).
3. Restricting the auction to 25% of the CO_2 allowances allocated to MA until the effect on the auction process in MA can be better evaluated.
4. The concept that the total amount of allowances purchased by any one entity should be limited to 100% of the facility's CO_2 potential to emit.
5. A set-aside for new units similar to the set-aside provided in the NOx Allowance Program and in the proposed CAIR Program.
6. The idea that projects funded from the CO_2 allowance auctions should not be limited to energy conservation activities.

Thank you again for this opportunity to provide comments. If you have any questions concerning these comments, please do not hesitate to contact me at (978) 573-1277 or via email at wwaters@pmlp.com.

Very truly yours,

William F. Waters
Manager

Union of Concerned Scientists
Citizens and Scientists for Environmental Solutions

To: Nicholas Bianco, Massachusetts Department of Environmental Protection

From: John Rogers, Northeast Clean Energy Project Manager, Union of Concerned Scientists

Date: April 16, 2007

Re: Comments on Massachusetts' RGGI rule drafting

Given that challenge and the opportunities to address global warming, the Union of Concerned Scientists appreciates this opportunity to submit comments as part of Massachusetts' rule-making for implementing the Regional Greenhouse Gas Initiative in the state. We appreciate the Mass. Department of Environmental Protection and Mass. Division of Energy Resources' extensive process of stakeholder involvement and the diligence of both agencies in ensuring that the Massachusetts rule be a strong one.

Global warming is one of the most serious challenges humankind has ever faced, raising fundamental principles of stewardship and our shared responsibility to future generations. The Northeast Climate Impacts Assessment (NECIA),[16] a collaborative effort to apply the best and most recently available earth science and climate modeling capabilities to project the potential impacts of global warming on the Northeast, makes clear that our window for stabilizing greenhouse gas concentrations at reasonably safe levels is closing quickly.

Both the NECIA and the recently released Fourth Assessment Report of the Intergovernmental Panel on Climate Change *Summary for Policymakers* conclude that, to avoid dangerous climate change, the United States and other industrialized countries must reduce emissions on the order of 80% below 2000 levels by 2050—and that we must put the policies necessary to begin moving toward this ambitious outcome in place within the next few years.

RGGI, with its goal of reducing power plant carbon emissions 10% by the year 2020, is thus a modest but crucial step in the right direction, largely because of its precedent-setting nature. This landmark initiative and the widespread public support for it sends a powerful signal that the American citizenry is ready to implement an innovative, flexible, and cost-effective but *mandatory* program to reduce the U.S.'s contribution to global warming, starting with the leading carbon-emitting sector in our economy.

RGGI will be judged a success only to the degree that it actually succeeds in that objective. *If properly designed, RGGI will reduce electric sector emissions not merely from power plants located in the Northeast, but from all electricity generated anywhere to serve the Northeast's demand for electricity.* With proper design and implementation, RGGI will truly serve to:

- begin the shift toward more efficient and less carbon-intensive electricity generation;

[16] Union of Concerned Scientists, Report of the Northeast Climate Impacts Assessment, October 2006. See: www.climatechoices.org

- fully exploit the region's cost-effective energy efficiency resources, which analyses have demonstrated are ample;[17] and
- demonstrate to the rest of the country not merely the feasibility but the multiple benefits that can be realized by successfully harnessing market forces to reduce carbon emissions—the promise of carbon "cap-and-trade" systems—and stimulate improved energy efficiency and greater renewable energy development through technological and policy innovation that strengthens the local and regional economies.

In these comments, we:

- Applaud and affirm Gov. Patrick's decision for 100% auction of RGGI emissions allowances;
- Strongly recommend the use of allowance auction proceeds to reduce the costs of meeting the RGGI goals;
- Call for strong attention to the widely-acknowledged problem of potential "leakage" under RGGI; and
- Urge inclusion of the provision supporting the voluntary renewable energy market.

Because previous UCS comments to Mass. DOER and DEP during this stakeholder process have addressed some of those points, these comments focus principally on the treatment of the voluntary renewable energy market.

While we have focused on the above issues, we are also concerned about some of the latest proposals for handling the 7.29 regulations and their integration with RGGI, and may be submitting or supporting additional comments on that matter.

Comments on the Model Rule

We strongly urge that the Massachusetts RGGI rule-making include provisions to:

1. Auction 100% of emissions allowances.

We applaud Gov. Patrick's commitment to auctioning 100% of emissions allowances as the most economically and politically justifiable policy. The failure to include the social and environmental cost of carbon emissions—and as the Northeast Climate Impacts Assessment has shown, the very real economic cost—in the market for the production and use of electricity is a fundamental cause of the problem of global warming. Information in support of 100% auctions is included in brief below[18] and in greater detail in the joint comments submitted by UCS and others

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[17] See, for example, Northeast Energy Efficiency Partnerships/Optimal Energy, *Economically Achievable Energy Efficiency Potential in New England*, May 2005. Available at http://www.neep.org/files/Updated_Achievable_Potential_2005.pdf.

[18] In creating a "cap-and-trade" system, government is essentially assigning monetary value to something that has previously had no monetized cost—the emission of a pollutant into the Earth's common atmosphere—forcing firms to take into account ("internalize") the full cost of their production. With trading, emissions allowances become a valuable, scarce commodity. Free distribution of allowances constitutes a major windfall for emitters, essentially rewarding them for their past and present production of the social and environmental harm that necessitated the program. Windfalls such as those received by generators under the European Union Emissions Trading System are highly regressive, rewarding relatively large firms at the expense of the average consumer. Introducing a requirement for carbon emissions allowances into this market means that electricity generators will have an economic incentive to reduce their emissions and that more efficient and cleaner forms of generation will be at an advantage. Auctions

to Mass. DEP and DOER on March 19, 2007.[19] The Patrick administration's position on auctions is especially important because it sets a strong precedent for other states as they craft their rules.

2. Use auction proceeds to benefit electricity consumers.

The money from the auctions should be used to benefit consumers by substantially expanding programs promoting energy efficiency measures and renewable energy generation to serve Massachusetts customers, enhancing consumers' and businesses' energy security and lowering their overall energy bills. Our position on the use of allowances is addressed in the joint March 19 comments, and expressed in the joint statement on "How Revenues from RGGI Should be Used to Maximize Benefits for Consumers and the Environment" agreed to by UCS and more than a dozen other organizations.[20]

3. Address leakage.

"Leakage", the prospect that increased imports of power generated outside the RGGI states by carbon-intensive but unregulated (for carbon dioxide emissions) sources could negate some or all of its environmental and other benefits, is also important because of its implications on RGGI as a sound model for the ultimate fix to the problem: a well-designed national carbon cap-and-trade program. Leakage is, as stated at the May 2, 2006, Stakeholder Meeting,[21] the potential "Achilles heel" of the RGGI program.

The current treatment discriminates against lower carbon sources within the region in favor of higher emitting imports. It therefore creates economic incentives for increased power generation and increased development of new dirty power plants outside the region over incentives to develop new clean energy sources within the region.

State Working Group modeling shows that leakage might be expected to account for 40% of the reductions attributable to RGGI. However, actual experience could easily turn out to be far worse than predicted by the modeling. Modeling generally assumes rational long-run economic behavior. Purchases of power from existing coal plants in the Midwest treated as "zero emissions" under RGGI, for example, do not necessarily require long-term commitments, creating incentives for those purchases even over purchases of less expensive long-term, true zero-emission investments within the region. New proposed transmission lines may increase the amount of power that can be imported from the Midwest relative to the modeled scenarios.

The RGGI region is surrounded by proposals to build new conventional coal plants. New coal plants proposed for nearby states alone could be sufficient to overwhelm all the emission reductions expected from RGGI. Demand from the RGGI states could contribute to new coal plant construction either directly, through contracts with these plants, or indirectly, by purchase of power from existing plants, enabling companies in the regulated states surrounding RGGI able to "justify" new plant construction, supported by their captive ratepayers, earlier. Modeling by the

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implicitly reward those with low emissions, requiring them to purchase fewer allowances. They also make it easy to handle new entrants in the market.

[19] Clean Water Action/Conservation Law Foundation/Environmental League of Massachusetts/Mass. Climate Action Network/Union of Concerned Scientists, "Comments on allowance auctions and other issues related to Massachusetts' Implementation of the Regional Greenhouse Gas Initiative".

[20] See Appendix A.

[21] by Michael Bradley

U.S. Energy Information Administration of the National Commission on Energy Policy proposal, with double the rate of improvement in carbon intensity, under different price cap assumptions, found that 66-85% of overall carbon emission reductions would come from the electricity sector. A primary difference between the reference case and the case with the highest carbon emission reductions was the difference between building approximately 250 new 600 MW conventional coal plants in the reference and the net retirement of approximately 125 existing coal plants. In this scenario, no new conventional coal plants are built beyond those already under construction, although 17 GW of new IGCC coal plants with carbon capture and storage are built. Even so, overall carbon emissions are barely lower in 2030 than in 2003. It is thus vital that RGGI not inadvertently contribute to construction of new coal plants outside the region.

We strongly urge that the Massachusetts draft rule actively and effectively address the issue of leakage. We are very willing to continue to work with the RGGI states, including Massachusetts, and the leakage work group to help solve this problem. While trying to create solutions that will solve the leakage problem for the lowest cost is important, leakage must not become a cost-control mechanism that undermines RGGI effectiveness and credibility while setting a poor policy precedent.

4. Support the voluntary renewable energy market.

The strong continuation of one of the most successful voluntary approaches to date to reducing carbon dioxide (CO2) emissions, the growing purchases of "green" or renewable energy by energy consumers, depends on Massachusetts adopting the Model Rule provisions for reducing its carbon budget by the amount displaced by green purchases. Failing such a move by Massachusetts, the voluntary market for renewable energy could be seriously undermined.

Renewable energy is very important to Massachusetts' energy development, as reflected in policies such as the state's renewable electricity standard (RPS) and the state's commitment to green power purchases. Renewable energy sources—wind, bioenergy, solar, geothermal, ocean, and incremental hydropower from existing dams—are the region's only indigenous carbon-neutral energy supplies, and the state's only indigenous energy supplies. Their use can be dramatically increased while saving consumers money and reducing exposure to fossil fuel price volatility,[22] to the risk of supply shortages and interruptions, and to energy security challenges. They reduce upstream and downstream environmental impacts from fossil fuel extraction, refining, transport and waste disposal. When sited in or when their energy is delivered to the state, they reduce regional air emissions of fine particulates and mercury, and reduce the cost of controlling sulfur dioxide and nitrogen oxide emissions. Renewable energy creates regional economic development opportunities, including increased employment, and increased revenues to local landowners and towns. With the state's outstanding academic and technical communities, they create the opportunity for the region to become a global leader in the export of clean energy technologies.

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[22] A State Working Group modeling scenario found, for example, that in the reference case, if only 50% of current renewable electricity standard targets were met, baseline emissions would increase, leakage from imports would increase, but energy bills would be virtually unchanged. When natural gas prices increase, renewable energy becomes even more cost-effective, and tends to displace more new coal additions. Additionally, by reducing the demand for natural gas, adding renewable energy will reduce natural gas prices. (R. Wiser et. al., "Easing the Natural Gas Crisis: Reducing Natural Gas Prices through Increased Deployment of Renewable Energy and Energy Efficiency. Lawrence Berkeley National Laboratory," January 2005)

Voluntary renewable energy purchases, in turn, have been very important to the development of renewable energy in the state and region, representing "a powerful market support mechanism for renewable energy development"[23] by individuals, businesses, and government agencies. Green power sales grew by 60% in 2004 and almost 40% in 2005, with 2005 retail sales totaling 8.5 million megawatt-hours—about 0.2% of total U.S. electricity sales; the Northeast was responsible for most of the customer growth in 2005. Voluntary green power markets have provided support for more than one-fifth of new renewable energy capacity additions nationwide since 1997.[24] In the Northeast, most of this demand growth is coming from corporations, institutions and government, as evidenced by the growth of the EPA Green Power Partnership, whose list top 25 Green Power Partners includes.[25] A growing number of towns, colleges, and universities are voluntarily committing to purchase 20% of their electricity from renewable energy sources by 2010.[26] Various states in the region have invested significant time and resources into supporting the growth of renewable energy purchases,[27] as has the federal government.

Massachusetts consumers have various options for buying green power or renewable energy certificates (RECs), and many take advantage of those options. Several utilities—National Grid and the municipal utilities in Concord, Reading, Shrewsbury, and Hudson—and other in-state aggregators/suppliers such as Cape Light Compact and Mass Energy Consumers Alliance offer purchase options to their customers or more broadly. National Grid's GreenUp program, marketing offerings from four independent suppliers, recently ranked in the top 10 of U.S. utility programs, based on almost 24,000 customers in Massachusetts, New York, and Rhode Island buying 156,000 green megawatt-hours per year.[28]

While customers that voluntarily purchase renewable energy, or green power, do so for a variety of reasons, principal among them is a desire to create environmental benefits.[29] Many corporations and institutions in particular are motivated by a desire to make greenhouse gas reduction claims. In announcing its recent record-setting purchase of renewable energy, for

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[23] L. Bird and B. Swezey, *Green Power Marketing in the United States: A Status Report (Ninth Edition)*, National Renewable Energy Laboratory, November 2006.
[24] Ibid.
[25] The top 25 U.S. EPA Green Power Partners (mostly large organizations, including several companies in the Northeast, such as Massachusetts-based Staples, Inc.), for example, annually purchase over 4 million megawatt-hours of renewable energy or RECs. (See, for example, U.S. EPA, "Private Sector Tops Green Power List," January 29, 2007, available at http://yosemite.epa.gov/opa/admpress.nsf/4b729a23b12fa90c8525701c005e6d70/70628d9a3fdd05ac85257272005a8efe!OpenDocument, and Green Power Partnership, www.epa.gov/greenpower/partners/top25.htm).
[26] See, for example, http://www.smartpower.org/20renewable_energy.htm.
[27] New York's renewable electricity standard, for example, specifically includes voluntary purchases, with a part calling for at least one% of renewable energy generation to come from voluntary purchases.
[28] "Top Ten Utility Green Power Programs," U.S. Department of Energy, available at http://www.eere.energy.gov/greenpower/resources/tables/topten.shtml.
[29] See for example, B. Farhar, *Willingness to Pay for Electricity from Renewable Resources: A Review of Utility Market Research*. Golden CO: National Renewable Energy Laboratory, 1999; E. Holt, R. Wiser, R. Mayer and S. Innis, *Understanding Non-Residential Demand for Green Power*, Washington DC: National Wind Coordinating Committee, 2001; R.Lehr, W. Guild, D. Thomas and B. Swezey, *Listening to Customers: How Deliberative Polling Helped Build 1,000 MW of New Renewable Energy Projects in Texas*, Golden CO: National Renewable Energy Laboratory, 2003.

example, Wells Fargo presented it as "help[ing] develop renewable energy *and prevent[ing] the emission of 380,000 tons of carbon dioxide each year…*"[30]

Without an ability to make such claims for reduction of CO_2, green power marketers would have substantially less environmental benefit to sell, despite the fact that the additional renewable generation does avoid the dispatch of higher carbon generation, and would likely have considerably reduced market appeal.

To further the goals of RGGI, in auctioning emissions allowances Massachusetts should support, not undermine, such voluntary action. The model rule provides clauses that provide clear and simple guidelines on accounting for voluntary renewable energy purchases and that could easily be included in the Massachusetts RGGI rule. Section XX-1.2(bm) defines such purchases:

> Voluntary renewable energy purchase. A purchase of electricity from renewable energy generation or renewable energy attribute credits by a retail electricity customer on a voluntary basis. Renewable energy includes electricity generated from biomass, wind, solar thermal, photovoltaic, geothermal, hydroelectric facilities certified by the Low Impact Hydropower Institute, wave and tidal action, and fuel cells powered by renewable fuels. The renewable energy generation or renewable energy attribute credits related to such purchases may not be used by the generator or purchaser to meet any regulatory mandate, such as a renewable portfolio standard.

Section XX-5.3(d) describes the mechanisms for retiring allowances accordingly, beginning with:

> Voluntary renewable energy market set-aside allocation. For each control period, the REGULATORY AGENCY shall allocate to the voluntary renewable energy market set-aside account a certain number of tons, calculated as set forth in this subdivision, from the NAME OF RELEVANT RGGI STATE CO2 Budget Trading Program base budget set forth in section XX5.1, as applicable. The REGULATORY AGENCY shall administer the voluntary renewable energy set-aside in accordance with this subdivision…

That section goes on to include provisions for setting aside allowances based on projections of the size of the voluntary market, provisions for verifying and documenting actual purchases (with the onus being on the retail renewable energy/attribute providers), provisions for calculating the carbon reduction value of those purchases, and truing-up provisions

Including those important clauses in the Massachusetts RGGI rule would like have limited effect on allowance availability or prices, because of the current small scale of the retail green power market. National Grid's green power programs, for example, had participation from only 0.5% of customers in 2005, and accounted for only 0.21% of their total power sales.[31] Estimated purchases from all Massachusetts Clean Energy Choice-qualified suppliers in 2006 through

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[30] "Wells Fargo Commits to Largest-Ever Corporate Purchase of Renewable Energy in U.S.," Press release, October 3, 2006 (emphasis added). Available at www.wellsfargo.com/press/20061003_GreenPower?year=2006.

[31] L.A. Bird and E.S. Brown, *Utility-Marketer Partnerships: An Effective Strategy for Marketing Green Power?*, National Renewable Energy Laboratory, April 2006.

National Grid's GreenUp program and Cape Light Compact Green were under 40 gigawatt-hours, or under 0.1% of retail electricity sales in the state.[32]

Failing to include those clauses, however, would likely have significant effects on the voluntary market. Without those clauses, additional voluntary purchases of renewable energy by or for retail customers would not affect the state's allowance allotment. While the additional renewable generation would avoid the need for additional fossil generation to be dispatched, no corresponding allowances would be retired. Neither the sellers nor buyers of additional renewable energy could make definitive claims to be reducing carbon emissions, undermining a crucial incentive for such purchases to be made.

EPA officials have discussed the present ambiguity about the ability of renewable energy generators to make carbon reduction claims in future cap-and-trade programs, and the implications for renewable energy:

> Emissions will not be reduced below the cap … even if new non-emitting generation comes on line. **The only way to reduce emissions of a capped pollutant is to retire allowances.**[33]

Indeed, federal guidelines for meeting green power purchasing goals for federal agencies specifically state that:

> Only those REC/renewable power purchases, renewable on-site projects or renewable facilitated projects that have retained all emissions credits/allowances and other environmental attributes can be counted against the Federal Renewable Energy Goal.[34]

If new renewable energy projects in the RGGI region are not associated with any allowance retirements, they would therefore likely be considered ineligible for purchase under federal programs, or by states, towns, or other entities that decide to follow federal guidelines.

To sustain and encourage the voluntary markets, the CO_2 benefits of renewable energy in displacing emitting sources in the RGGI region must be recognized. Just as RGGI has forecast demand for state renewable energy standards and lowered the emissions cap by subtracting the resulting emissions reduction, so too should Massachusetts' RGGI rule include the provisions for forecasting voluntary demand and subtracting the resulting emission reductions from the cap, detailed in Section XX-5.3(d).[35]

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[32] Personal communication with MTC staff, April 13, 2007.
[33] Matt Clouse, US EPA, "Environmental Attributes and RECS: A Work in Progress," Southeast Green Power Marketing Conference, Orlando, Florida, May 2005 (emphasis in original). Available at: www.southeastgreenpower.net/2005/presentations/MattClouse.ppt
[34] United States Department of Energy - Federal Interagency Energy Management Task Force 2005: *Executive Order 13123 Renewable Power/REC Procurement Guidance*; "REC" is "renewable energy certificate" or "renewable energy credit".
[35] Viewing voluntary purchases of renewable energy as the "currency" for retiring allowances pre-auction would arguably be much more in keeping with the spirit of the administration's 100% auction commitment than the use of 7.29 GHG credits that is currently being considered.

We strongly urge the inclusion in the Massachusetts RGGI rule of the RGGI model rule clauses covering the treatment of voluntary renewable energy. The "free" carbon emissions reductions, paid for by interested and motivated citizens and corporations in Massachusetts through their voluntary purchases of renewable energy, improve the effectiveness and cost of RGGI, and deserve the support of Massachusetts' RGGI rule.

* * *

Thank you very much for your consideration of these comments, and for your and your colleagues' continued efforts to implement this landmark program in a way that is fundamentally effective and fair, and provides a successful model for a solid national program.

Sincerely,

John H. Rogers
Northeast Clean Energy Project Manager

Appendix A

How Revenues from RGGI Should be Used to Maximize Benefits for Consumers and the Environment

April 2007

1. All funds obtained from sale of the Regional Greenhouse Gas Initiative (RGGI) allowances should be used to benefit electricity consumers, to reduce the cost of implementing the RGGI program, and to advance the emissions-reduction goals of the program. Such funds should be allocated to those strategies which are most cost-effective in the short- and long-term for achieving these goals. No funds should be returned to electricity generators or used for other expenses of state government.

2. Because energy efficiency measures are currently the most cost-effective method of reducing energy consumption and therefore the costs of RGGI to consumers, the RGGI funds should be used primarily to expand efficiency programs.

3. Funds not spent on accelerating end-use efficiency should be used to assist the achievement of emissions reductions beyond those mandated by RGGI, to accelerate progress toward the 75% to 85% cuts that scientists agree are necessary and that are called for by the New England Governors/Eastern Canadian Premiers Climate Action Plan and in the plans of several northeast states. In particular, those revenues should support development and expansion of clean, safe renewable energy technologies beyond the levels required under state renewable energy standards, when such technologies are among the most cost-effective long-term options.

4. RGGI funds should only be used to support programs and activities that do not pose a significant risk to human health or the environment.

5. RGGI funds should be used to assist new programs or to expand existing programs, but only if those expansions would not have occurred anyway. In no case should RGGI funds be used to replace existing programs, investments, or funding.

6. RGGI funds should also be used to ameliorate the impacts of RGGI on low income customers, preferably through provision of energy efficiency programs to such households. In addition, a small portion of the RGGI funds could be used to ease the transition for communities and workers that see unusually sharp losses due to reduced operation of local fossil-fuel plants, should that occur.

American Council for an Energy-Efficient Economy
Connecticut Clean Water Action
Conservation Law Foundation
Environmental Advocates of New York
Environment Connecticut
Environment Massachusetts
Environment New Hampshire
Environment Rhode Island
Massachusetts Clean Water Action
Massachusetts Climate Action Network
Natural Resources Defense Council
New Hampshire Clean Water Action

New York Public Interest Research Group
Pace Law School Energy Project
Rhode Island Clean Water Action
Union of Concerned Scientists