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WRITTEN TESTIMONY OF ENVIRONMENT NORTHEAST

**Before the Massachusetts Department of
Environmental Protection and
Massachusetts Division of Energy Resources**

Rockport, ME
Portland, ME
Providence, RI
Hartford, CT
New Haven, CT

on

**MA Department of Environmental Protection (MassDEP) regulations 310 CMR 7.70
“Massachusetts CO2 Budget Trading Program” and Amendments to 310 CMR 7.00 et seq.: 310
CMR 7.29 "Emissions Standards for Power Plants” and “310 CMR 7.00: Appendix B(7)
“Emission Banking, Trading, and Averaging” and**

**MA Division of Energy Resources (DOER)’s CO2 Budget Trading Program Auction Regulation
225 CMR 13.00**

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September 24, 2007

Environment Northeast (ENE) 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 RGGI and look forward to working with the State of Massachusetts as it moves forward with the RGGI rulemaking process. ENE believes that RGGI is an essential policy tool to get the State of Massachusetts and the region on the proper greenhouse gas emissions trajectory. RGGI uses market forces to guide an orderly, phased transition away from dirty, inefficient electricity generation and achieves emission reductions in the most cost effective way possible. ENE commends the Governor and agencies for committing Massachusetts to participate in RGGI, as this will position the Commonwealth’s industry and consumers to succeed in an economy that increasingly places a price on carbon. RGGI must be rolled out in a manner that demonstrates how a successful cap and trade program for CO₂ can be designed and implemented, as you are creating a model for a national program.

ENE fully supports RGGI and looks forward to working with Massachusetts as it moves forward with the RGGI rulemaking process. We appreciate the opportunity to submit written testimony on both provisions of the Department of Environmental Protection regulation, 310 CMR 7.29, 310 CMR 7.00 Appendix B(7), and 310 CMR 7.70 and DOER regulations 225 CMR 13.00.

We have broken our testimony into three sections based on the draft proposed RGGI rules:

1. MassDEP PROPOSED REGULATIONS:

310 CMR 7.70:

Section 5: CO₂ Allowance Allocations

(a) Massachusetts CO₂ Budget Trading Program

(c) CO₂ allowance Allocations

1.a. Greenhouse Gas Credit Exchange Set-Aside

1.b. Voluntary Renewable Energy (VRE) Account:

2. Early Reduction CO₂ Allowances

Provisions related to biomass:

Section (1) CO₂ Budget Trading Program General Provisions

b. Definitions

Section 6 CO₂ Allowance Tracking System

(e)2: Deductions for Compliance

Section 8: Monitoring and Reporting

(g) CO₂ budget Units that co-fire eligible biomass

Section 10: CO₂ Emissions Offset Projects:

Not Including the Optional Behind the Meter Exemption

310 CMR 7.00: Appendix B:

(7) Greenhouse Gas Credit Banking and Trading:

(h) Exchange of GHG Credits for CO₂ Budget Trading Program CO₂ Allowances

2. DOER PROPOSED REGULATION

225 CMR 13:

03: Multi-State Auction Option

06: CO₂ Allowance Auction Procedures

(6) "Any CO₂ allowances left unsold in any auction shall be re-applied to a subsequent auction or group of auctions, which shall be determined by the Division in consultation with the Auction Advisory Committee."

(7) Auctions of CO₂ allowances may be held with or without a reservation price, as determined by the Division.

08: Participant Eligibility:

3. USE OF AUCTION PROCEEDS

1. MassDEP PROPOSED REGULATIONS

Proposed Regulations 310 CMR 7.70

7.70 (5) CO₂ Allowance Allocations:

(a) Massachusetts CO₂ Budget Trading Program base budget:

ENE is concerned that the base budget for the Massachusetts CO₂ Budget Trading Program is defined in the regulations without any opportunity for adjustments over time. New information on energy use, preliminary emissions data, and industry news reports have led ENE to be concerned that the RGGI cap level has been set too high. Since the states have not compiled and released emissions data for the RGGI regulated facilities for 2005 or 2006, ENE is in the process of compiling emissions data for more recent years and our preliminary results indicate that the emissions trajectory was down significantly in 2006.

ENE has compiled information from EPA where available and using EIA fuel use data for those facilities that do not report CO₂ emissions to EPA. As a part of that analysis, we also compiled data from scratch for the 10 RGGI states back to 1995. We will be sharing this information in detail with the RGGI Staff Working group, but feel it is important to flag our results at this time given the regulation timeline.

Based on our review, the regional RGGI cap is significantly above total regional emissions for the 1995 to 2005 time period. Emissions were highest in 2005 when the cap would have been ~3% higher than the regional emissions level. With the decline in emissions that occurred in 2006, the cap level is ~ 15% higher than emissions.

The potential impacts of having a starting cap that is so high above actual emissions in the early years of RGGI include:

- no market for RGGI allowances,
- no change in our power plant dispatch,
- delay of any shift in the way we make power away from dirtier, inefficient sources to cleaner, more efficient sources
- failure to position our regional economy to take advantage of expected carbon regulations from the federal government
- loss of \$50-130 million for new efficiency investments

There are several mechanisms which can be utilized to make sure that RGGI is successful including reducing the initial cap level and/or retiring CO₂ credits if a reservation price has not been met. Public commitments and modeling done for the RGGI process were designed to establish the cap at a level equivalent to current emissions. The states should review emissions data through 2006 and early 2007 and reassess as needed whether this goal has been achieved in light of any new data or corrections to older data. ENE believes that the states should incorporate 2005 and 2006 emissions data and ensure that the cap is set at a level consistent with recent emissions (such as the 2004 to 2006 average emissions level); this may require the states to reduce the regional cap level and thus state-by-state cap commitments. For this reason, we believe the DEP regulation should be changed to include an option for the Commissioner to reduce the cap level if average emissions are significantly lower than the regional cap level.

In addition to reviewing the cap level, the states should continue to move forward with the inclusion of a reserve price in any auction design, but should send a clear signal to the market by retiring allowances that are withheld and not holding them for future auctions – this should be a policy to address cap level concerns and not a mechanism to ensure the auction delivers revenue to the states (see further discussion below on the reserve price).

For this reason, we believe the Massachusetts CO₂ Budget Trading Program base budget section 5 (a) should be amended to provide authority for the Commissioner to reduce the cap level consistent with:

- any future changes to the RGGI Memorandum of Understanding among the participating states, or
- subject to any regionally applied mechanism (such as a reserve price / retirement mechanism, described below) that indicates an adjustment to the emissions budget levels indicated in this section.

Proposed Regulations 310 CMR 7.70

(5) CO₂ Allowance Allocations:

(c) CO₂ allowance allocations, 1. General allocations: a. Greenhouse Gas Credit Exchange Set-Aside: “ii: The Department shall allocate to the Greenhouse Gas Credit Exchange Set-aside a sufficient number of CO₂ allowances for the Massachusetts CO₂ Budget Trading Program annual base budget, as set forth in 310 CMR 7.70 5(a), to enable the Department to allocate CO₂ allowances pursuant to 310 CMR 7.00: Appendix B(7)(b).

To facilitate the transition from existing regulations 310 CMR 7.29, in the Background Information and Technical Support Document for Proposed Adoption of these regulations MassDEP proposes to set-aside a small amount (approximately 1% or 266,602 CO₂ allowances) of CO₂ allowances from 2009 through 2010 allowance years. However, the proposed regulations do not provide information as to the amount of this set-aside. We believe that the set-aside amount should be capped in the regulation to ensure that the set-aside amount does not change.

Proposed Regulations 310 CMR 7.70

(5) CO₂ Allowance Allocations:

(c) CO₂ allowance allocations, 1. General allocations: b “Voluntary Renewable Energy (VRE) Account:

Environment Northeast support the inclusion of the set-aside for voluntary renewable purchases in the state rulemaking process which are similar to the optional provision of the RGGI Model Rule (RGGI section XX-5.3(D) although the mechanics differ. Environment Northeast believes that retiring these credits to support the voluntary renewable market will ensure that the marketers can continue to claim a reduction in carbon emissions. However, we do not believe that there should be a cap set on the number of allowances that are permanently retired to support the purchase of qualified renewable energy. Unless voluntary renewable energy purchases and the emissions reductions they provide are accounted for, generators burning fossil fuels can just produce more electricity - even for sale outside the state/region negating the benefits of those voluntary purchases. Having a cap might hinder the expansion of the voluntary energy market and a large voluntary market will only help the region achieve its emissions reductions faster.

If MassDEP decides to cap the number of voluntary renewable energy allowance that are retired, the regulations should be clarified to ensure that 200,000 CO₂ allowances PER YEAR are eligible to be retired. ENE suggests that CMR 7.70 C: 5(c) (iii) be modified with the following addition in bold, “After review of the certified report submitted to the Department pursuant to 310 CMR 7.70(5)(c)1.b.ii, the Department will allocate to the VRE Account the number of CO₂ allowances reported pursuant to 310 CMR 7.70(5)(c) 1.b.ii., or 200,000 CO₂ allowances **PER YEAR**, whichever is fewer.

Proposed Regulations 310 CMR 7.70

(5) CO₂ Allowance Allocations:

2. Early Reduction CO₂ Allowances:

ENE does not believe that MassDEP should adopt the early Reduction Allowance provisions of the model rule. Since early reduction allowances are not included in the auction, we believe that this provision goes against the state’s commitment to auction almost all allowances, especially since the early reduction allowances would be given away for free. In addition, the early reduction allowances are in addition to the cap. Since there may be an over allocation of carbon credits, this provision will inflate the cap even more. Finally auctioning of allowances will also increase the incentive companies have to make plant improvements early as they will have to pay for 100% of their allowance needs during the first year of the program.

Proposed Regulation 310 CMR 7.70 Relating to Eligible Biomass

(1) CO₂ Budget Trading Program General Provisions

b. Definitions

and

(6) Section 6 CO₂ Allowance Tracking System

(e) 2. Deductions for Compliance

and

(8) Monitoring and Reporting

(g) CO₂ budget Units that co-fire eligible biomass

Eligible Biomass is defined in the proposed regulations 310 CMR 7.70 as it is in the regional Model Rule. We endorse this definition as it allows certain generation plants co-firing biomass with fossil fuels to make CO₂ deductions from their compliance obligation. Draft Rule, Section 6.e(2)(a); Model Rule Subpart XX-6.5(b)(1) (providing that regulated units may deduct from their total CO₂ allowance obligation “any CO₂ emissions attributable to the burning of eligible biomass...”).

It is true that units burning biomass emit significant quantities of CO₂ from their smokestacks. Nonetheless, CO₂ deductions for Eligible Biomass are allowed on the premise that the amount of carbon emitted from the combustion of a quantity of biomass is essentially the same as the amount of carbon that will be taken out of the atmosphere in the future and stored, during the process of photosynthesis, in biomass that regrows on land where the old biomass was harvested. This premise holds true only so long as:

- the land on which the biomass was harvested is not converted to a use that prevents regrowth of a new generation of biomass, and
- the harvest methods ensure future regrowth of an equivalent amount of biomass in a reasonable time period and avoid significant depletion of carbon in the forest soils.

Examples of practices that would prevent sufficient regrowth on a given area of forest land include conversion of the land to development (such as a parking lot, a housing complex, or a road) or employing harvest practices that significantly inhibit future productivity, such as repeated high-grading, excessive soil compaction, or whole-tree harvesting without replenishing soil nutrients. Soil carbon can be depleted either through direct disturbance during harvesting, or indirectly in the long-term through excessive removal of harvest residues and other woody debris.

According to the Massachusetts Audubon Society, over 202,000 acres were converted to new development statewide between 1985 and 1999. Thirty-one acres of forest, 7 acres of agricultural land, and 2 acres of open space were developed each day during the period. Wood chips from land clearing operations are a waste stream that should be utilized, and burning for biomass energy is an important use. However, this fuel source cannot be considered to be carbon neutral or sustainable, particularly because burning chips instead of burying them in landfills will cause emissions to occur sooner.

Consistent with the above reasoning, the Draft Rule provides that Eligible Biomass:

includes sustainably harvested woody and herbaceous fuel sources that are available on a renewable or recurring basis (excluding old-growth timber), including dedicated energy crops and trees, agricultural food and feed crop residues, aquatic plants, unadulterated wood and wood residues, animal wastes, other clean organic wastes not mixed with other solid wastes, biogas,

and other neat liquid biofuels derived from such fuel sources. Sustainably harvested shall be determined by the Department.

Draft Rule, 310 CMR. 7.70, Section 1.(b), emphasis added.

This definition tracks the language of the RGGI Model Rule at Subpart XX-1.2(ag).

Under the Draft Rule, old growth is not considered an eligible biomass fuel. ENE concurs that harvesting late-successional forests for biomass should not be eligible for CO₂ deductions, since it could take many decades for the forest to recapture the lost carbon. However, the Department needs to provide more detail on what old growth means, since there is no commonly accepted definition for the region. The criteria used by the Bureau of Forestry as described by Cogbill (Cogbill, 1996) and Dunwiddie (Dunwiddie, 1993)¹, could be a basis for a definition. Furthermore, a method to monitor this would need to be developed.

For the sole purpose of implementing RGGI, “Eligible Biomass” could be handled in Massachusetts either by adding further specificity to the definition of the terms “Sustainably Harvested” and to the reporting requirements for units co-firing eligible biomass in the Draft Rule, or by providing some type of formal guidance in a companion document from the Department.

Consistent with the criteria regarding land conversion and harvest methods noted above, and without comment on the standards that should apply to non-woody biomass, we recommend incorporating the following elements for a new definition of “sustainably harvested”:

Section 1.B.(xx) Sustainably Harvested Woody Biomass (NEW). “Sustainably Harvested Woody Biomass” means woody biomass that the CO₂ budget source demonstrates has come from forested land that is not being converted to a non-forest land use and is not otherwise harvested in a manner incompatible with the capacity of that forest to regrow at a rate that is not less than the rate of carbon accumulation prior to the harvest, as determined in accordance with Section 8.G. of this Rule.

Section 8.G.(2). ...

(xx) for each shipment of woody biomass received and claimed to be eligible biomass, the following information shall be tracked and entered into a database:

- (i) name of driver and shipping company
- (ii) quantity of woody biomass being claimed as eligible biomass in this shipment;
- (iii) location of the timberland or industrial source of all woody biomass being claimed as eligible biomass;
- (iv) name of the business or person that owns the timberland or industrial source of the shipment
- (v) method claimed for demonstrating that eligible biomass was sustainably harvested as provided in subdivision 8.G.3.

¹ Cogbill, C.V., for Vanasse Hangen Brustlin, Inc. for Wachusett Mountain Associates. 1996. *Wachusett Mountain Historical Forest Ecology Report.* 30 p.

Dunwiddie, P. W., 1993. *Survey of Old-Growth Forest in Massachusetts*, Final Report, prepared for Mass. Natural Heritage and Endangered Species Program. 9 p. plus appendices.

- (vi) whether the harvest was part of an approved long-term cutting plan as defined by the Massachusetts Forest Cutting Practices Act regulation 304 CMR 11.04
- (yy) the name and business address of all timberland owners or industrial sources from which shipments were received during the quarter, the total quantity of sustainably harvested woody biomass from each owner or source;
- (zz) evidence of certification, including certification number, evidence of tax status, and certificate showing an approved cutting plan for any timberland that was the source of sustainably harvested woody biomass during the year

Section 8.G.(3). Woody biomass will be deemed sustainably harvested for the purposes of calculating compliance obligation deductions under Section 6.E.² [Model Rule Section XX-6.5(b)] if the CO₂ budget unit claiming to have co-fired eligible biomass provides complete, timely reports for subdivisions 8.G(2)(xx) and (yy) of this subsection and an annual report to the Department indicating the total eligible biomass fuel input (tons) from each timberland or industrial source, by location, with the proper documentation, referred to in subdivisions 8.G(2)(zz), sufficient to demonstrate the following:

- (a) wood chips, trees, cord wood, tree limbs, woody debris, or tree tops delivered to the CO₂ budget unit came from timber harvest activities on lands for which there is a long-term forest cutting plan approved by the Department of Conservation and Recreation

- (i) enrolled in the Massachusetts Chapter 61 program, prior to the harvest, with an approved forest management plan; or,
- (ii) certified, prior to the harvest, in the Forest Stewardship Council (FSC), Sustainable Forestry Institute (SFI), American Tree Farm System (ATFS) group certification program;
- (iii) if the landowner owns less than 250 acres, compliance may be satisfied solely with an approved long-term cutting plan

- (b) wood residues are unadulterated and have been shipped to the CO₂ budget unit from industrial operations, including lumber or paper mills, provided that

- (i) if mills have chain-of-custody certification from FSC or SFI, residue that results from the production of 100% certified material (SFI Certified Sourcing Label, FSC Pure) will receive 100% deduction and residue that results from the production of mixed certified and non-certified product (SFI Percent Content Claim, FSC Mixed) will receive a percent deduction based on the percent certified material produced by the mill;

- (ii) if the mill does not have chain-of-custody certification, a default percentage deduction will apply to each ton of biomass CO₂ emissions to reflect the approximate percentage of forestlands under certification in the state of Massachusetts,

² Note that this section is not listed in the Draft Rule Table of Contents.

which percentage shall be adjusted each year as determined by the Massachusetts Bureau of Forestry;

(iii) construction and demolition waste shall not be considered unadulterated wood and shall not be eligible biomass.

(See also Model Rule XX-8.7)

Proposed Regulations 310 CMR 7.70

(10) CO₂ Emissions Offset Projects:

In Connecticut's draft regulations, the Connecticut Department of Environmental Protection (CT DEP) separated their draft regulations into two components, one for general RGGI rules and one relating to offsets. This way if the category of eligible offsets is expanded, CT DEP will not have to reopen all of their RGGI regulations, only the section that pertains to offsets. ENE suggests that MassDEP consider separating their RGGI regulations and make the offset section a stand-alone regulation.

Not Including the Optional Behind the Meter Provision

We understand that MassDEP is soliciting comments on whether or not the behind the meter provision exemption would be included in 310 CMR 7.70. We support MassDEP not including the optional behind the meter provision in its draft regulations. ENE concurs with MassDEP that fossil-fuel-fired units serving an electric generator with a nameplate capacity 25 MW or greater should comply with the CO₂ emissions requirements of the CO₂ Budget Trading Program even if they sell no more than 10% of their net electric generating capacity to the grid.

Proposed Regulation 310 CMR 7.00: Appendix B

(7) Greenhouse Gas Credit Banking and Trading:

(h) Exchange of GHG Credits for CO₂ Budget Trading Program CO₂ Allowances

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. 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). Since the deadline application for certification of GHG Credits is January 30, 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. The draft regulations state that GHG credits may be created for emissions reduced, avoided, or sequestered up to and including December 31, 2012. ENE believes that this deadline should be deadline of December 31, 2011 instead of December 31, 2012 since this would correlate with the end of the first 3 year compliance period.

ENE supports the exchange of one CO₂ Budget Trading Program CO₂ allowance set aside for every two GHG Credits, but believes that the regulation should state that this exchange is capped at 1% or 266,602 CO₂ allowances (see above for more discussion on this issue).

2. DOER PROPOSED REGULATION

225 CMR 13.00:

225 CMR 13.03: Multi-State Auction Option:

We understand that these auction procedures are being developed in the event that a Massachusetts-only auction is pursued and that DOER does not require additional regulations to participate in a regional auction. We do not think it is essential that MA participate in a regional auction. However, there are likely many reasons to do so, including reduced transaction costs, a higher level of consistency among states, transparency, market stability, and the ability of a market monitor to focus on one major trading platform or event.

MA should be sure that participation in a regional auction would not lead to the need to form a compact among the participating states, as this would present a legal and political hurdle. We believe these auction regulations could be a prototype for the rules that would govern a regional auction.

225 CMR 13.06: CO₂ Allowance Auction Procedures

We support the use of regular, quarterly auctions and are glad that MA has codified quarterly auctions in the regulatory rules. However, the final auction report from Burtraw et al, May 25, 2007. *Auction Design for Selling CO₂ Emissions Allowances under the Regional Greenhouse Gas Initiative: Phase 1 Research Report (Draft)* has not been finalized. We hope that the auction research team will examine the question of when the first auction should occur for a given vintage (i.e. how many months before the start of the first compliance period). The value of allowances has a direct impact on the marginal costs of power plants and how generators bid in the power markets. To avoid excessive speculation and increase certainty in the power markets, we believe that the first auction for a given vintage of allowances (2009-2011) should be completed a number of months prior to the first compliance month. So an auction would occur in 2008 for a portion of the first compliance period allowances. We also think that more research should be done on whether a portion of allowances should be auctioned for later compliance periods and how the futures market will interact with the auction process. It is our understanding that a futures market would provide some price certainty and help reduce long-term risk. We are hopeful that the research team will examine this timing issue and make a recommendation on when the first auctions for each compliance period should occur. We hope that MA DOER will be able to incorporate the final recommendations from the auction report into the regulations to address some of these concerns.

225 CMR 13.06: CO₂ Allowance Auction Procedures:

(6) *“Any CO₂ allowances left unsold in any auction shall be re-applied to a subsequent auction or group of auctions, which shall be determined by the Division in consultation with the Auction Advisory Committee.”*

(7) *Auctions of CO₂ allowances may be held with or without a reservation price, as determined by the Division.*

We are supportive of DOER having a reservation price included in the draft regulations. We believe that all states should have a reservation price and that it should be a regional price. While we support the use of a reserve price in the auction but believe that it should be combined with allowance retirement, especially in the first compliance period if the cap level has been set higher than current emissions.

The reserve price in the first compliance period should be utilized along with allowance retirement and not just allowance banking. Only retirement will lead to environmental benefits if the cap has been set

too high. We would suggest a process such as the following for the reserve price in the first compliance period, and potentially subsequent periods:

- The states should agree to this process through an amendment to the MOU;
- The states should agree to a reserve price (potentially at an undisclosed level as recommended in the draft Auction report), but we believe this should be at least \$2-3 per ton CO₂;
- If the reserve price is not met, the auction design should facilitate the retirement of allowances until the minimum price is achieved;
- Allowances retired should be done so proportionally by each state based on their relative cap level;
- It should be clear to market participants that allowances retired in the first compliance period will be permanently retired, as uncertainty about future availability will add some risk to the market.

As a result, we hope that Section (6) can be modified so that any CO₂ allowances left unsold are permanently retired to help reduce the cap level.

225 CMR 13.08: Participant Eligibility:

The allowance auction should always be open to all, but consideration should be given to rules related to possible limits on the % of allowances any entity could own and to the need for market monitoring. Open markets will increase liquidity and allow for the development of strong secondary markets and other financial tools that allow for hedging and increased market stability. Since RGGI is a regional cap and trade program, the auction should always be open to CO₂ budget units who are regulated under the RGGI process. Therefore, at a minimum, “Category No. 2: Owners of CO₂ budget units located outside of the Commonwealth but within a participating state” should be eligible to participate in all auctions along with “Category No. 1: owners of CO₂ budget units located in Massachusetts”

To ensure that the carbon market is not being manipulated, a market monitor should be established who reviews and analyzes the RGGI allowance market on a regular basis to ensure that no entity is exercising market power. This would be similar to the market monitoring done for other markets such as the ISO New England markets, although the analysis and level of effort would likely be less onerous or the market could be assessed by a regional contractor working for the Regional Organization who would report any irregularities to the appropriate state agency for review and action

3. USE OF AUCTION PROCEEDS:

The rational and fair decision is to auction 100% of the allowances (with the two caveats of the voluntary renewable energy set aside and the 7.29 transition) and use the allowance value to reduce the cost of the program on the region’s ratepayers. We are concerned that the proposed regulations do not address what Massachusetts intends to do with the auction proceeds. As we have mentioned in previous comments, we believe that the value of RGGI allowances should only be spent on activities or programs that meet the following criteria:

- 1) Reduce the costs of the RGGI program to the state’s electricity ratepayers
- 2) Provide additional benefits for activities or projects that would not have occurred anyway and not replace existing programs or investments; and
- 3) Support programs and activities that do not pose a significant risk to human health and the environment.


We believe the state should make an explicit policy statement, such as the one above, in the regulations that will guide all future investments of RGGI allowance value.

The criteria noted above would mean that programs and investments would be limited to the electric sector and those activities that most reduce consumer costs or maximize cost-effective investments would be targeted. In the near term, we believe the primary investment should be in additional electric sector energy efficiency programs. However, over time, other non-emitting electric sector technology investments could be considered such as renewables or carbon capture and sequestration.

Energy efficiency investments provide four major benefits to the state's electricity ratepayers:

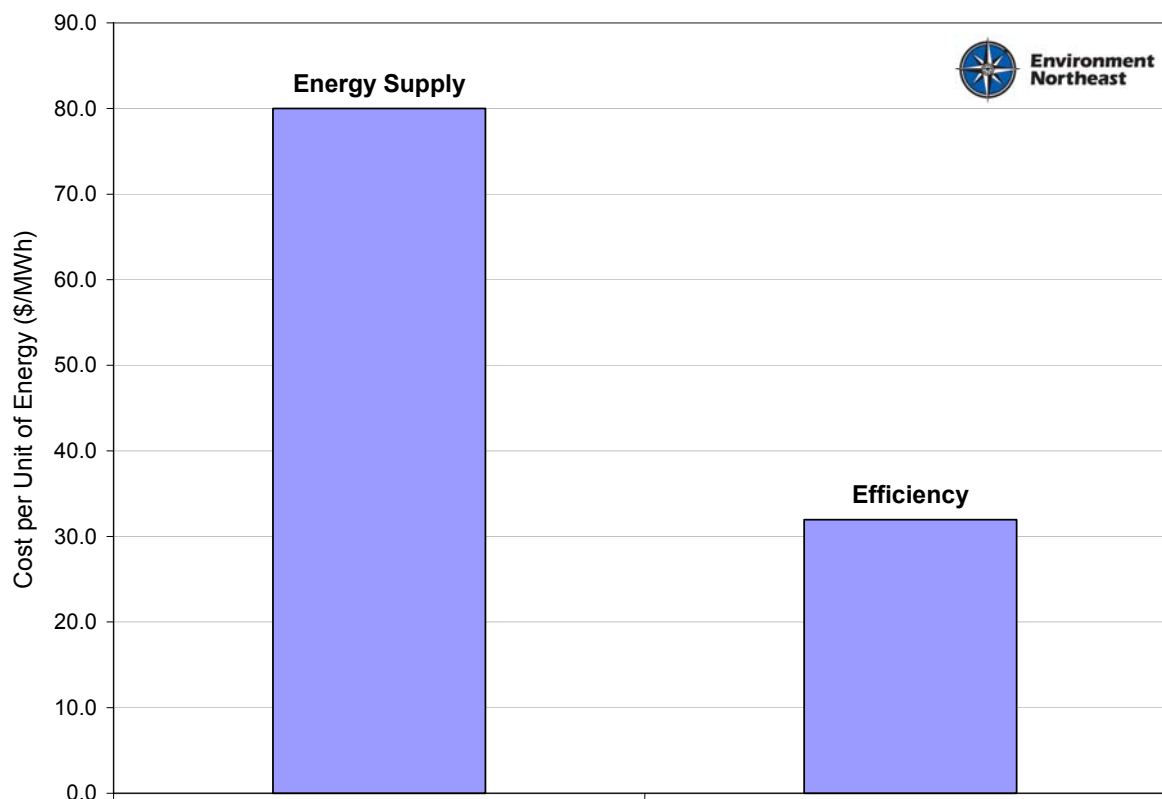
- Consumer's electric bills are reduced through reductions in their energy consumption;
- Investments in efficiency substitute for payments for fossil fuels and keep energy dollars in-state leading to economic and job growth;
- Through reduced energy demand, the RGGI cap is easier to achieve and the program as a whole is cheaper leading to lower wholesale electric prices for everyone; and
- Reduced demand avoids the need to build expensive new transmission and distribution infrastructure as well as new power plants.

Massachusetts has active and strong electric efficiency programs run by the electric distribution companies. These programs save consumers three to four dollars for every dollar invested and studies of the achievable potential for energy efficiency indicate that there is a vast resource that is still untapped. Doubling or even tripling efficiency investments would be required to come close to achieving all that is cost-effective. The table and figure below illustrate the benefits of existing programs and the cost of efficiency investments that save a unit of energy versus electric supply purchases that deliver an additional unit of energy to the grid. The current Massachusetts energy efficiency programs administered by the utilities deliver the following benefits:

Total & Projected Massachusetts Electric Efficiency Program Costs & Benefits		 Environment Northeast	
Based on 2005 Programs for All Companies			
One Year Costs and Benefits (2005)			
Utility Cost	\$124	Million	
Total Resource Costs	\$164	Million	
Total Resource Benefits	\$506	Million	
Net Total Resource Benefit	\$343	Million	
Electric System Only Benefits	\$410	Million	
Total Resource Benefit Cost Ratio	3.1	(Benefit/Cost)	
Electric System Benefit Cost Ratio	3.3	(Benefit/Cost)	
Peak (Summer) Demand Reduction	58.5	MW	
Annual Energy Savings	458,325	MWh	
Lifetime Energy Savings	5,123,738	MWh	
Total Resource Summer Demand Cost	2,800,376	\$/MW	
Total Resource Energy Cost	32.0	\$/Lifetime-MWh	
Approx. Avoided Energy Cost (ISO-NE 2005 Avg. LMP)	80.0	\$/MWh	
Equivalent Lifetime Emissions Avoided			
SO ₂	5,201	Tons	
NO _x	1,383	Tons	
CO ₂	2,823,180	Tons	
Projected Costs and Benefits over Ten Years			
Utility Cost	\$1,242	Million	
Total Resource Costs	\$1,637	Million	
Total Resource Benefits	\$5,064	Million	
Net Total Resource Benefit	\$3,426	Million	
Electric System Only Benefits	\$4,096	Million	
Peak (Summer) Demand Reduction	585	MW	
Annual Energy Savings	4,583,250	MWh	
Lifetime Energy Savings	51,237,380	MWh	
Equivalent Lifetime Emissions Avoided			
SO ₂	52,006	Tons	
NO _x	13,834	Tons	
CO ₂	28,231,796	Tons	
Sources:			
All program costs and benefits are compiled from MA DOER spreadsheets based on <i>2005 Energy Efficiency Annual Reports</i> filed by each company with MA DOER and DTE			
Emissions based on: ISO New England, May 2006, <i>2004 New England Marginal Emission Rate Analysis</i> , from annual average (all hours) and lifetime energy savings			

The figure below compares the cost to save consumers a unit of energy versus to cost to supply an additional unit of energy; Massachusetts spends over \$4.6 Billion dollars on supply of electric energy while investing only about \$125 Million in energy efficiency; we are not investing in the cheapest resource.

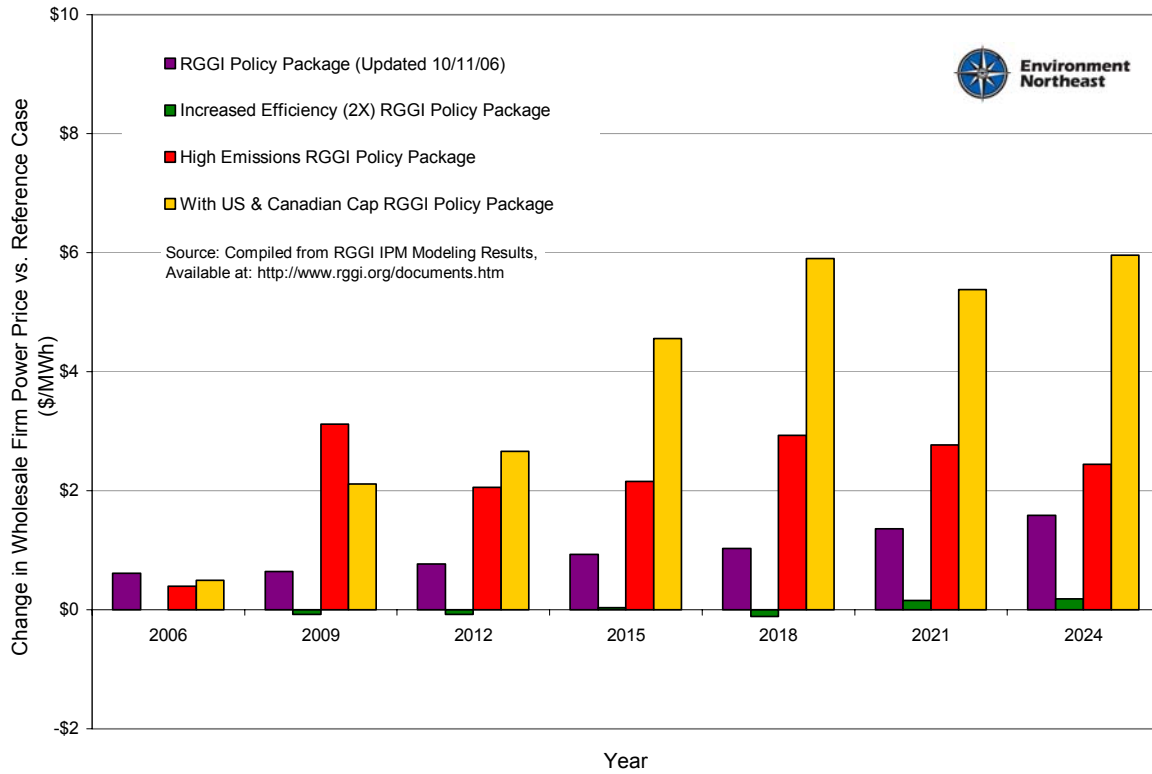
Electric Generation vs. Energy Efficiency Costs



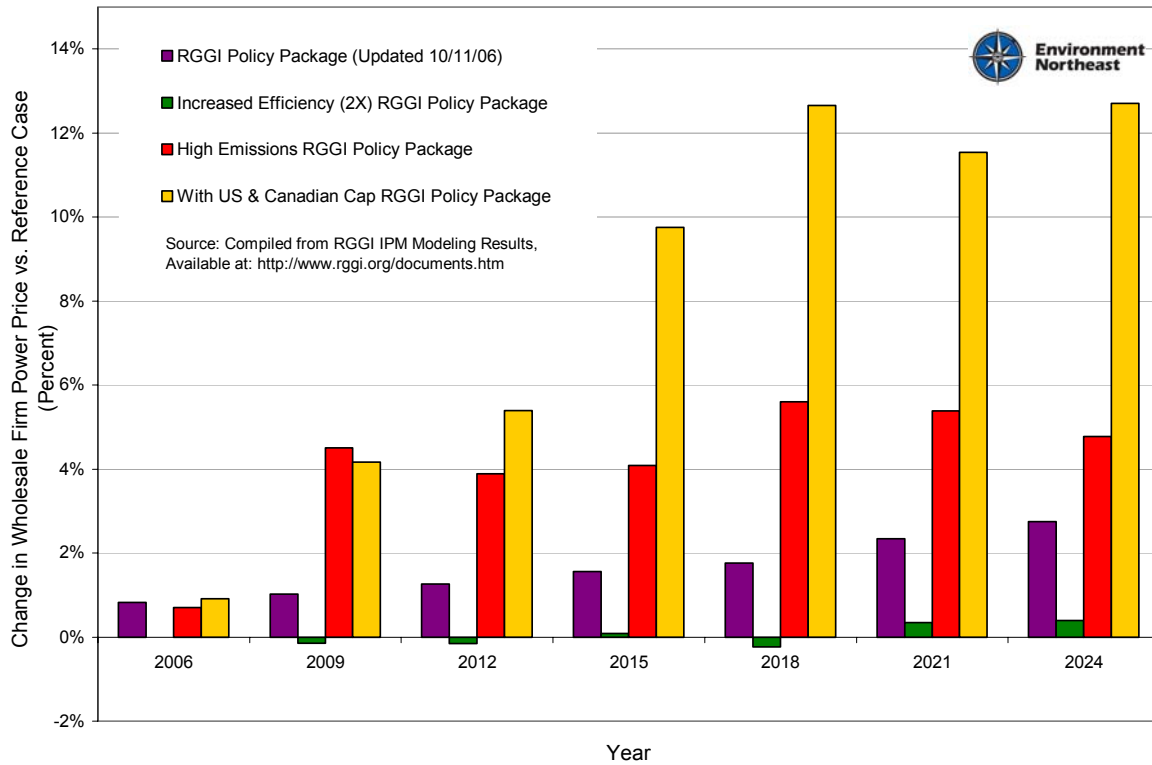
These efficiency programs put real dollars back in ratepayer's pockets that they can then spend on other parts of the state's economy. The state spends billions of dollars every year on fossil fuels from other parts of the country and the world. Avoided electric consumption translates into avoided payments for natural gas and oil (plants using these fuels are primarily on the margin), reducing the state's trade imbalance. In contrast efficiency programs fund energy service companies with local employees to install new more efficient equipment that is more likely to have been manufactured in the state or region. Investments in energy efficiency boost the state's economy and lead to job growth both in the energy service sector and in the economy as a whole due to transfers of payments from the electric sector to other parts of the economy.

Energy efficiency programs have significant system-wide benefits. In particular, reduced demand depresses the wholesale electric energy price, and because peak is lower, the capacity price is also reduced. These benefits are significant today, but under RGGI, the system benefits are even larger. If electric consumption is growing and the RGGI program requires a decline in emissions, the goals are harder to achieve and more expensive than if electric consumption is held steady or even declines through investments in efficiency. The RGGI modeling results bear this out. The following figure illustrates the change in wholesale electric prices between the equivalent RGGI reference case and the policy case.

Forecasts of Changes in Wholesale Electric Power Price Increases Due to RGGI



Forecasts of Changes in Wholesale Electric Power Percent Increases Due to RGGI



As the figures above indicate, the wholesale electric price is actually reduced in some years if RGGI is implemented along with a doubling of efficiency investments. Efficiency investments along with RGGI will deliver these savings to all consumers in the RGGI region.

Note that wholesale power prices are over half of delivered retail prices with wholesale prices in the range of \$60 to 100 per MWh and transmission and distribution costing about \$30 to 50 per MWh.

Increases in efficiency programs can be delivered using a number of policy mechanisms or tools. ENE believes that most of the RGGI allowance value should be used to increasing funding for efficiency programs. However, other sources of funding for programs could include: the Forward Capacity Market, the sale of NOx allowances, commitments to increase efficiency through investing in all cost-effective efficiency to be paid for through rates, or other policies.

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 our testimony.



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