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Richard A. Valentinetti
Director, Air Pollution Control Division,
Dept. of Environmental Conservation, Agency of Natural Resources
103 South Main Street, Building 3 South
Waterbury, VT 05671-0402

Rockport, ME
Portland, ME
Boston, MA
Providence, RI
Hartford, CT

Environment Northeast's Comments on Vermont CO₂ Budget Trading Program Regulations

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 (ENE) 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 Vermont as it moves forward with the RGGI rulemaking process. ENE believes that RGGI is an essential policy tool to get Vermont 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 Vermont to participate in RGGI, as this will position the state'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.

Our comments will focus on several aspects of the Vermont CO₂ Budget Trading Program Regulations and we will provide additional comments about the RGGI process based on our involvement in other states.

1. 22-501: State of Vermont CO₂ Budget Trading Program Base Budget
2. 22-502: CO₂ allowance allocations
3. 22-102: Definitions
 - Consumer benefit or strategic energy purpose account
 - Fossil fuel-fired
 - Eligible biomass
4. Voluntary renewable energy market set-aside allocation

1. 22-501: State of Vermont CO2 Budget Trading Program Base Budget

ENE is concerned that the base budget for the Vermont 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.

The summary of the Vermont DEC rule states that: *Beginning in 2009 through 2014, overall CO2 emissions from subject units in participating RGGI states would be capped at approximately current levels. From 2015 through 2018, emissions would be reduced by 2.5% each year to achieve a 10% reduction in 2018.*¹

The original modeling conducted to develop the RGGI cap level and framework indicated that under business as usual scenarios carbon dioxide emissions from the region's power plants would continue to rise, primarily due to increasing demand for electricity. However, more recent emissions information obtained in the past few years indicates that this has not been the case. In fact, these data indicate that carbon emissions have declined significantly from a high in 2005. Both 2006 and 2007 emissions appear to be significantly below the originally projected carbon trends and are thus below the regional RGGI cap level. ENE has been carefully tracking emissions trends and has compiled available data from US EPA through the third quarter of 2007, which appears on the following pages. As you will see in the figures below, EPA data include a majority of the emission sources (some natural gas plants do not report to EPA) and are a good indicator of emissions trends. Based on these data, ENE estimates that the emissions levels in 2006 and 2007 could be as much as 17% and 11% below the RGGI cap level. (We note that higher dispatch of natural gas plants may reduce this difference slightly once all data are available).

There are a number of factors that seem to be leading to this reduced level of emissions, including: mild weather, economic growth trends, reduced energy consumption, lower natural gas prices, and increased capacity factors at nuclear plants.

Lower emissions are undoubtedly a good thing. However, as with any commodity regulated by a cap and trade system, a positive price on carbon will only occur if there is some degree of scarcity in the marketplace. Without such scarcity, our region will not see changes in investment choices for power plant generation, or electrical equipment and systems that are a fundamental objective of the RGGI policy. These changes in investment will be necessary if we are to achieve long-term emissions reductions and transition to a sustainable low-carbon economy in New York and the region.

If actual emissions in the early years of RGGI turn out to be significantly below the cap level, as the data suggests, new clean tech companies may not receive new financial support and we may well see energy companies continue to invest in or at least dispatch old dirty power plant technologies fueled by coal and oil. Allowances will also be banked in early years, eliminating the environmental benefits of the RGGI program.

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

- no market for RGGI allowances,
- no change in our power plant dispatch,

¹ Vermont DEC, Proposed Rule Cover Sheet, Available at: http://www.anr.state.vt.us/air/docs/Proposed%20Cover%20Sheet_SOS1.pdf

- 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 money for new efficiency and other investments

We recognize that the negotiation of the RGGI cap level and program design was arduous and that most of the states are currently in the process of issuing or finalizing their regulations. However, we would recommend that the states commit to two RGGI policy decisions now to ensure that RGGI is a success:

- (1) establish an auction reserve price mechanism with allowances permanently retired or withheld in a contingency account, and
- (2) make a collective commitment to review the status of the RGGI cap level beginning at the start of 2010 with necessary adjustments made at the beginning of the second compliance period to ensure reduced emissions across the region.

The following figures illustrate the emissions trends from RGGI facilities based on state data where it has been compiled and from EPA acid rain program (ARP) data. ENE welcomes a discussion of any questions that this analysis may raise.

Figure 1: Comparison of the RGGI Cap Level to Recent RGGI Facility CO2 Emissions

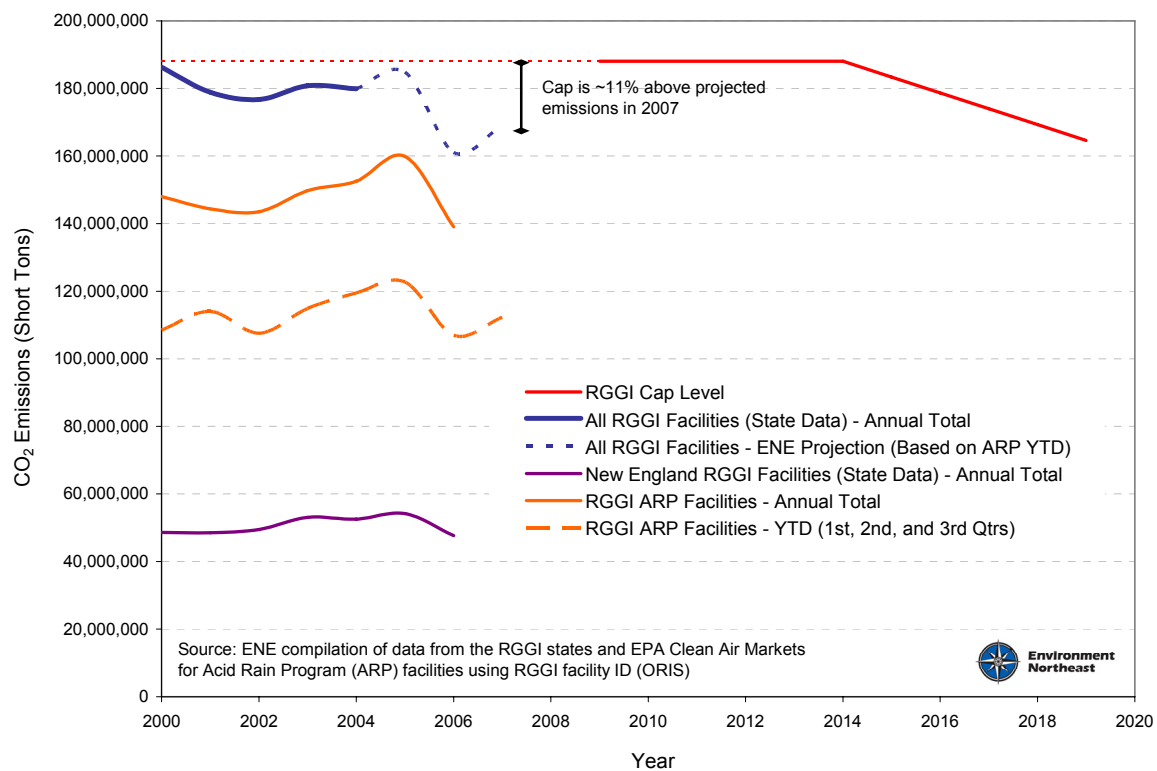
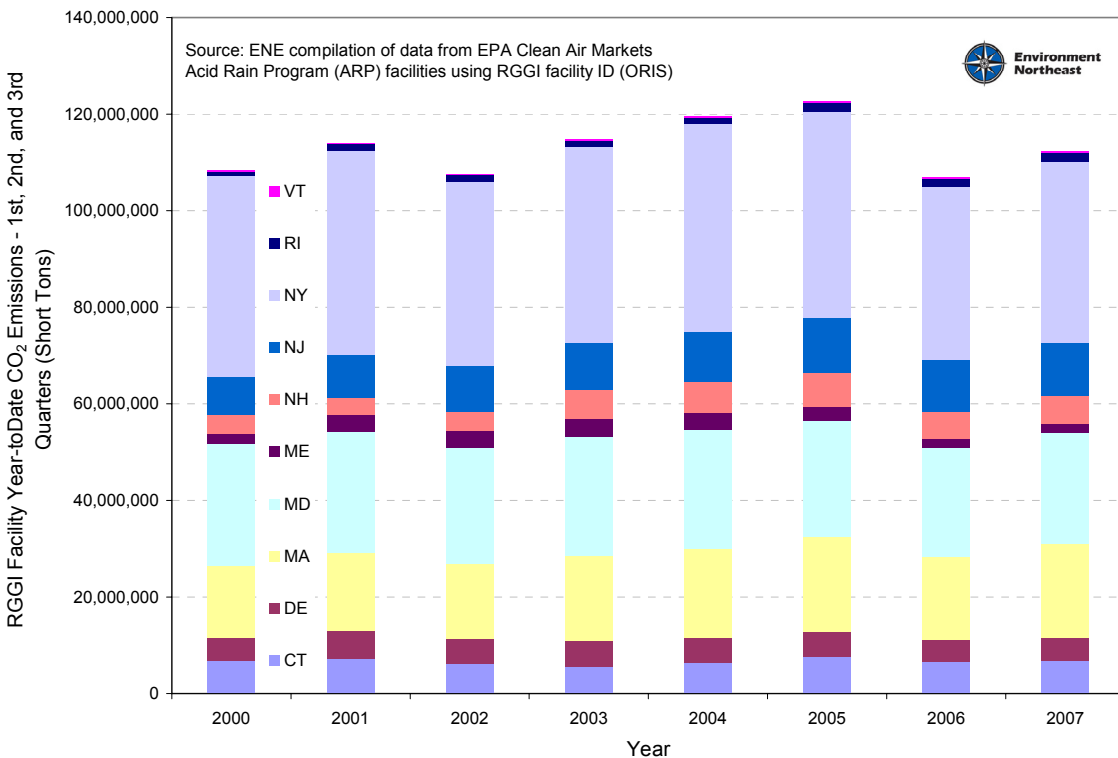


Figure 2: Year-to-Date RGGI Facility CO₂ Emissions (Acid Rain Program Facilities Only)

Total for 1st, 2nd, and 3rd Quarters of Each Year



ENE believes it is advisable for the states to signal that an adjustment to the cap may be necessary down the road and also to use the auction design to establish a mechanism that will ensure RGGI delivers at least a modest price on carbon.

Auction Reserve Price with Retirement or Contingency Account

A reserve price is a very common element of auction design and we support inclusion of this mechanism in the RGGI auction rules. The reserve price accomplishes three essential goals: 1) it ensures that the states do not give away a commodity below its value to society (the program goal is to deliver a reduction in emissions which requires the allowances to have a price), 2) it guards against collusive behavior, and 3) it gives developers and financiers of new technologies a higher level of certainty as to the value of carbon, reducing their development risks.

The reserve price should be set at a level that reflects the low-end of society’s willingness to pay for carbon emissions reductions and what it will take to induce a gradual shift to cleaner and more efficient technologies in the marketplace. Current information indicates that the low-end price of carbon should be at least \$3/ton CO₂ and, as the market develops, the reserve price should transition to being about 80% of the current spot market price or the \$3/ton limit, whichever is higher.

Allowances not sold through the reserve price mechanism should be removed from the market and permanently retired or held in a contingency account to be released only if the price in the previous quarterly auction exceeds \$20/ton CO₂. All price based mechanisms should be indexed to inflation plus have an additional percentage increase to reflect our willingness to pay more for carbon mitigation over time.

The states should agree regionally to these and other auction design elements through an amendment to the regional MOU.

2010 Review of the Regional Cap Level

There is clearly uncertainty about what will happen with emissions between now and the start of the RGGI program. However, the states would be well served to indicate that if the cap level has, through nobody's fault, been set too high it will need to be adjusted down. Signaling the states' intentions in advance will be very important to the market, which will be trying to place a long-term price on the value of allowances.

With the program start date approaching and given the time consuming process required for making changes to state regulations, we believe the best course at this time is to commit to reviewing the cap level in 2010 and making necessary adjustments at that time. The states should be clear and public about their intentions, and the best way to do this would be to amend the MOU and indicate when the review will happen and what adjustment would likely to be made. We would encourage language such as the following:

Beginning in January 2010 the states shall jointly review current emissions in relation to the regional RGGI cap level. If necessary, the cap level in the second compliance period (starting in 2012) and subsequent compliance periods will be adjusted down to ensure that RGGI delivers a 10% reduction in emissions from the current regional average by 2020.

This commitment is important to ensure that RGGI will deliver an environmental benefit, and it will also provide increased clarity to the market in terms of the changes in emissions that will be required by the program.

The RGGI states have acted together to ensure a successful program that requires the cap level to constrain emissions over time. That coordinated action will be needed should the cap levels be greater than actual emissions. Only then will a good precedent be set and investments made in the RGGI states that position the region's companies and economy at a competitive advantage. Under a future federal carbon cap and trade program, those regions of the country that use energy efficiently and have a lower emissions profile will bear a lower financial burden while at the same time building up their clean tech sector for future growth.

2. 22-502: CO2 allowance allocations

Environment Northeast is supportive of 22-502 which states "The Agency will allocate 100% of the State of Vermont CO2 Budget Trading Program annual base budget to the consumer benefit or strategic energy purpose account." We are encouraged that Vermont set a legislative precedence for 100% auction and led the way for almost all RGGI states to auction 100% of allowances. The rational and fair decision is to auction 100% of the allowances and use the allowance value to reduce the cost of the program on the region's ratepayers.

Environment Northeast believes that 100% of allowances should be auctioned and used to reduce consumer costs (once the allocation for voluntary renewable credits has been set aside as is in the Voluntary Renewable Energy Market Set-Aside Allocation).

To reiterate our previous comments which we submitted in April 2007 on the draft pre-proposal, the rational and fair decision is to auction 100% of the allowances and use the allowance value to reduce the cost of the program on the region's ratepayers.

Some large industrial consumers and regional electric utilities are calling for 100% auction of RGGI allowances.

- A letter and white paper from National Grid supports 100% auction or allocation to consumers with the money used for rebates or expanded energy efficiency investments.²
- The Connecticut Industrial Energy Consumers state, *“Energy prices in Connecticut currently are significantly higher than the national average. And, consumers have experienced dramatic increases in the past several years. Consistent with Connecticut’s goal of reducing the price of electricity, the State should mitigate the impact of RGGI on the price of electricity by auctioning all of the RGGI air emissions allowances, to the maximum extent possible, and utilizing all of the auction proceeds as a credit on retail electricity consumers’ bills on a kilowatthour basis.”*³
- Large industrial groups like New York’s Multiple Intervenors are saying, *“All RGGI Emissions Allowances Should Be Auctioned and The Proceeds Should Be Applied As A Per-kWh Credit To Retail Electric Distribution Rates.”*⁴

No persuasive reason has been presented for why allowances should be allocated to electric generators for free. On the other hand, economic and fairness issues clearly support a complete or large and growing auction of allowances, with generators having to purchase them and the proceeds used to reduce the cost of the emissions programs on electric ratepayers.

The arguments for an auction and against free allocation of allowances are strong:

- Air quality and the world’s climate are a public good that polluters do not have a right to spoil – the purchase of allowances is consistent with the ‘polluter pays’ principle with payment for pollution rights being a cost of production.
- Previous cap and trade programs, created prior to electricity restructuring, did not face the same issues, as cost of service regulations allowed excess profits to be returned to ratepayers; the electric markets are very different today than when the SO₂ and NO_x programs were first created.
- Most generators, and all economists we are aware of, agree that an allowance, whether allocated for free or purchased, has an opportunity cost as it can be used for compliance, banked, or sold to others.
- Allowances are assigned the market value (opportunity cost) by generators and that cost is built into their marginal costs or O&M costs that determine their bid prices in the marketplace.
- Because costs are built into bid prices, whether generators get an allowance free or have to pay for it, these costs are passed on to consumers – while making that expense to consumers larger than necessary.
- Because electric consumers will bear the very modest cost of the RGGI program, we see no reason for generators to profit at their expense.
- As a part of utility restructuring, part of the deal with moving to competitive markets was that generators took on regulatory risk in exchange for a significantly freer and less regulated market.

² National Grid comments submitted to the RGGI process, available at: http://www.rggi.org/docs/national_grid_whitepaper.pdf

³ Connecticut Industrial Energy Consumers comments submitted to the RGGI process, available at: http://www.rggi.org/docs/ciec_comments.pdf

⁴ Multiple Intervenors (New York) comments submitted to the RGGI process, available at: <http://www.rggi.org/docs/mi.pdf>

- This is consistent with the idea of competitive and free markets – let the markets work.
- In any case, Vermont consumers are already paying generators very significant amounts of money in the form of capacity payments – states should not add free allowances to this already very significant stream of payments.

Economists, consultants, and government agencies that have looked the issue of allocation are increasingly in agreement that allowances should be auctioned to avoid windfall profits and avoid market distortions. This has been increasingly clear in the European Union where recent experience with its carbon dioxide cap and trade program has indicated that some companies are reaping very large windfalls because allowances were allocated to them for free (see references below).

In an April 25, 2007 Congressional Budget Office (CBO) Economic and Budget Issues Brief called *Trade-Offs in Allocating Allowances for CO₂* the CBO stated that “...the cost of holding the allowances would generally be reflected in the prices that producers charged, regardless of whether those producers had to buy the allowances or were given them for free.” This means that producers would pass on the value of the allowances as a cost on to their consumers either way since they allowances have an opportunity cost. “That result was borne out in the cap-and-trade programs for sulfur dioxide in the United States and for CO₂ in Europe where consumer prices rose even though producers were given allowances for free.”⁵

While it may seem at first glance that generators will be forced to pay the full costs of compliance with RGGI; in reality the costs associated with purchasing allowances are passed on to electricity consumers. The good news is that since these costs will be distributed among millions of customers, the impact on individuals’ electric bills will be small while the benefits to public health and the environment will be large.

- The projected direct electricity cost impacts due to RGGI would be modest under the best estimate and range from 0.3% to 0.6% in 2015 resulting in a bill increase in the range of \$3-\$16 per average household annually in 2015.
- In addition, designing expanded energy efficiency programs into the RGGI framework or providing direct rebates to electricity consumers from the sale of emissions allowances would reduce consumer costs and lead to improved job and economic growth.
- Studies have shown that investments in end-use energy efficiency programs, as a result of, or in conjunction with RGGI are projected to be so effective in reducing total electricity usage by households, that they will mitigate any cost increase associated with RGGI.

In addition, while RGGI may have a very small impact on the regional economy (as measured by Gross Regional Product, Real Personal Income, and Private Sector Jobs), RGGI modeling has shown that the impact is projected to be a **positive** one (primarily due to the benefits of investment in energy efficiency technologies) – ranging from a one hundredth to two-hundredth of one percent change (0.01% - 0.02% positive change in economic growth).

For additional background on the issue of allocation of emissions allowances, please refer to the following documents:

- Åhman, et al, 2006-forthcoming, *A Ten-Year Rule to Guide the Allocation of EU Emission Allowances*. Accepted for publication in the Journal of Energy Policy, April 2006.

⁵ Trade-Offs in Allocating Allowances for CO₂ Emissions, April 25, 2007, available at: <http://www.cbo.gov/ftpdoc.cfm?index=8027&type=1>

- Boemare, C., and P. Quiron, 2001. *Implementing Greenhouse Gas Trading in Europe: Lessons from Economic Theory and International Experience*. Report for the Interact project, DG Research of the EU Commission, Centre International de Recherche sur l'Environnement et le Development. www.centre-cired.fr.
- Burtraw, et al, K. 2006. *CO2 Allowance Allocation in the Regional Greenhouse Gas Initiative and the Effect on Electricity Investors*, The Electricity Journal, 19 (2): 79-90 (March).
- Burtraw, D., 2001. *The Effect of Allowance Allocation on the Cost of Carbon Emission Trading*, Resources for the Future Discussion Paper 01-30 (August).
- Burtraw, D., and K. Palmer, 2003. *Economic Efficiency and Distributional Consequences of Different Approaches to NOx and SO2 Allowance Allocation*, Prepared for the U.S. Environmental Protection Agency. <http://www.epa.gov/air/clearskies/econ.html> (accessed June 8, 2005).
- Burtraw, et al, 2002. *The Effect on Asset Values of the Allocation of Carbon Dioxide Emission Allowances*, The Electricity Journal, June 2002, Vol. 15, No. 5, pp. 51-62.
- Burtraw, et al, 2001. *The Effect of Allowance Allocation on the Cost of Carbon Emission Trading*, Resources for the Future Discussion Paper 01-30 (August).
- The Carbon Trust, 2004, *The European Emissions Trading Scheme: Implications for Industrial Competitiveness*, CT/2004/04
- Carlson, et al, 2000. *SO2 Control by Electric Utilities: What are the Gains from Trade?* Journal of Political Economy, 108:6, 1292-1326.
- CEEP, 2005, *Evaluation of CO2 Emission Allocations as Part of the Regional Greenhouse Gas Initiative*, Center of Energy, Economic, and Environmental Policy, Rutgers University
- Congressional Budget Office, 2003, *Issues in the Design of a Cap-and-Trade Program for Carbon Emissions*, Economic and Budget Issue Brief, November 25, 2003
- Cramton, P., and S. Kerr, 2002. *Tradable carbon permit auctions: How and why to auction not grandfather*, Energy Policy, 30, 2002, pp. 333–345.
- Electrowatt-Ekono Oy, 2004, *Emissions Trading and European Electricity Markets: Conceptual Solution to Minimise the Impact of the EU Emissions Trading Scheme on Electricity Prices, for The Alliance of Power Intensive Industries*, 60K04817.01-Q060-001
- Hamal and Madian, 2005, *Allocation of Emission Allowances for the Regional Greenhouse Gas Initiative*, White Paper for National Grid
- IPA Energy Consulting, 2005, *Implications of the EU Emissions Trading Scheme for the UK Power Generation Sector*, to: Department of Trade and Industry (DTI)
- Standard & Poor's, 2006, *Gas And CO2 Prices Fuel Profits For Electric Utilities In Europe's Deregulated Markets*, Standard & Poor's Credit Ratings - Commentary & News, 6 April 2006
- Stavins, R., 1998. "What Can We Learn from the Grand Policy Experiment? Lessons from SO2 Allowance Trading," Journal of Economic Perspectives, 12:3 (summer), 69-88.
- Sijm, et al, 2006, *CO2 cost pass-through and windfall profits in the power sector*, Climate Policy, 6 (1): 49-72
- Sijm, et al, 2005, *CO2 price dynamics: the implications of EU emissions trading for the price of electricity*, Energy Research Center of the Netherlands, ECN-C--05-081

- Tietenberg, T., 2001. *The Tradable Permits Approach to Protecting the Commons: What have we Learned?* Nota di Lavoro 36.2002, Fondazione ENI Enrico Mattei (FEEM).
- UBS, 2005, *CO2 – The Windfall Has Arrived*, UBS Investment Research, ETS Update, 7 June 2005

3. Subchapter 22-102: Definitions

Consumer benefit or strategic energy purpose account

Environment Northeast is supportive of 22-502 (af) Consumer benefit or strategic energy purpose account which states that it is “A general account managed by one or more consumer trustees appointed by the Public Service Board to receive, hold, bank, and sell CO2 allowances in order to provide the maximum long-term benefit to Vermont electric consumer, particularly benefits that will result from accelerated and sustained investments in energy efficiency and other low-cost, low-carbon power system investments and, to the extent feasible, accomplish the goals set forth in 30 V.S.A § 255(c)(2).”

Vermont should ensure that the allowance value from an auction is not squandered and is targeted to activities that reduce costs for the region’s ratepayers, support RGGI program goals, and generally receive public support by limiting potential negative environmental and health impacts. Increasing investments in energy efficiency programs and clean energy alternatives have the effect of lowering the cost of meeting emissions limits.

As a result, all activities and programs supported through the auction should:

- 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 model rule 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:

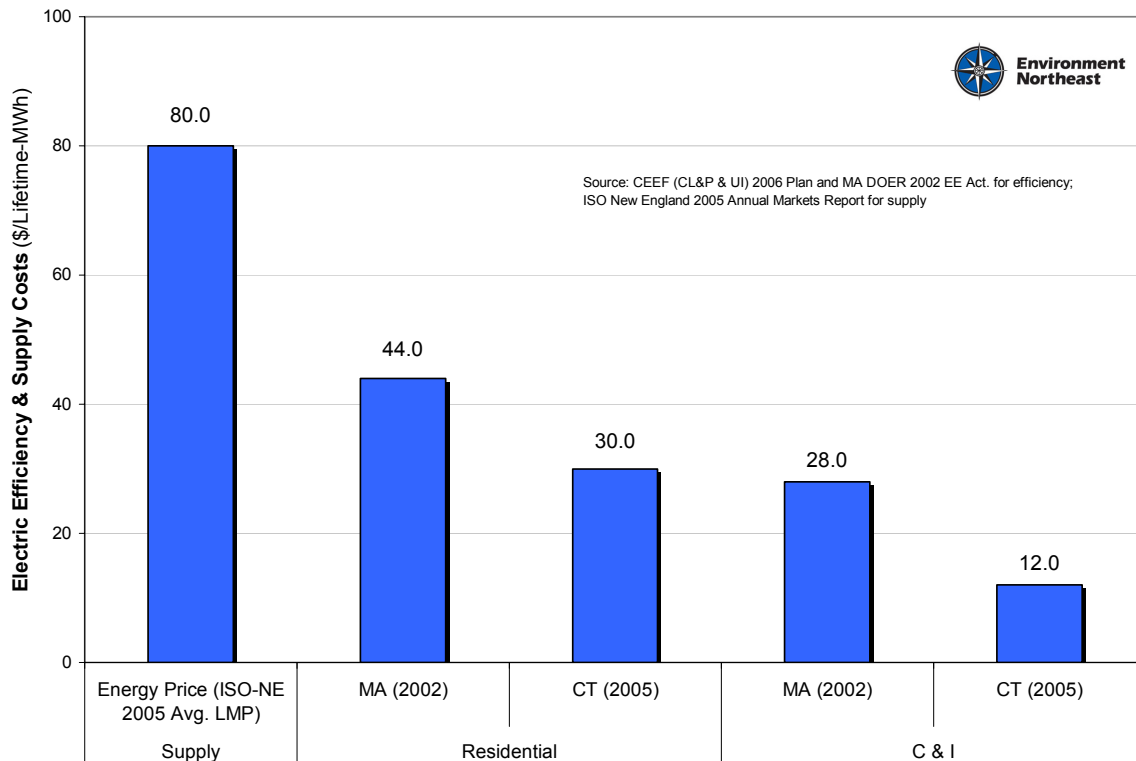
- Consumer’s electric bills are reduced through reductions in their energy consumption;
- Investments in efficiency substitute for payments for fossil fuels and keep energy dollars in-state leading to economic and job growth;
- Through reduced energy demand, the RGGI cap is easier to achieve and the 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.

The following table illustrates the potential size and value of the Consumer Benefit and Strategic Energy Purposes allocation at allowance prices of \$2 and \$5 per ton CO₂ and for VT could be \$2,451,660 at \$2 a ton and \$6,129,150 at \$5 a ton.

Table 1: Estimates of the Value of the Consumer Benefit and Strategic Energy Purposes Allocation

State	RGGI Cap Level	Value of Allowances w/ a 25% Consumer Allocation			Value of Allowances w/ a 100% Consumer Allocation		
		Allowances (tons)	@ \$2/ton	@ \$5/ton	Allowances (tons)	@ \$2/ton	@ \$5/ton
CT	10,695,036	2,673,759	\$5,347,518	\$13,368,795	10,695,036	\$21,390,072	\$53,475,180
DE	7,559,787	1,889,947	\$3,779,894	\$9,449,734	7,559,787	\$15,119,574	\$37,798,935
ME	5,948,902	1,487,226	\$2,974,451	\$7,436,128	5,948,902	\$11,897,804	\$29,744,510
NH	8,620,460	2,155,115	\$4,310,230	\$10,775,575	8,620,460	\$17,240,920	\$43,102,300
NJ	22,892,730	5,723,183	\$11,446,365	\$28,615,913	22,892,730	\$45,785,460	\$114,463,650
NY	64,310,805	16,077,701	\$32,155,403	\$80,388,506	64,310,805	\$128,621,610	\$321,554,025
VT	1,225,830	306,458	\$612,915	\$1,532,288	1,225,830	\$2,451,660	\$6,129,150
Total	121,253,550	30,313,388	\$60,626,775	\$151,566,938	121,253,550	\$242,507,100	\$606,267,750
MA	26,660,204	6,665,051	\$13,330,102	\$33,325,255	26,660,204	\$53,320,408	\$133,301,020
RI	2,659,239	664,810	\$1,329,620	\$3,324,049	2,659,239	\$5,318,478	\$13,296,195

Figure 3: Electric Generation vs. Energy Efficiency Costs



As Figure 3 shows, efficiency programs put real dollars back in ratepayer's pockets that they can then spend on other parts of the state's economy. States spend 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.

Figure 4: Forecasts of Changes in Wholesale Electric Power Price Increases Due to RGGI

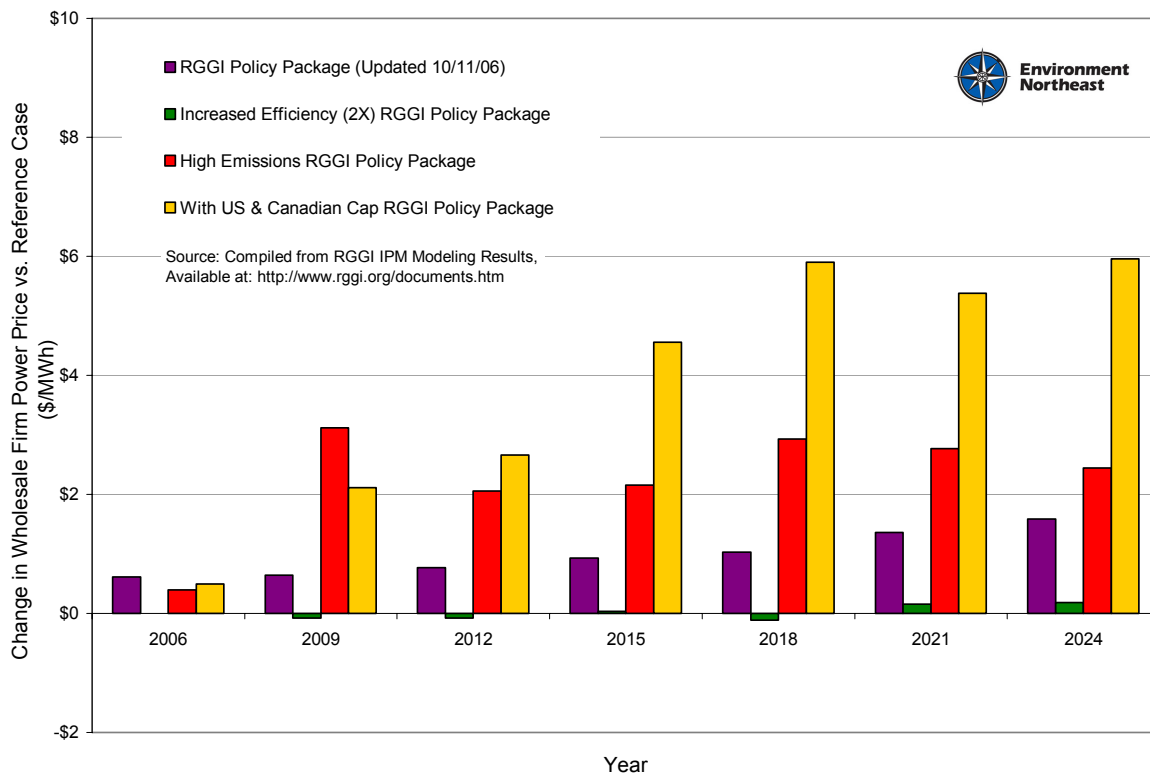
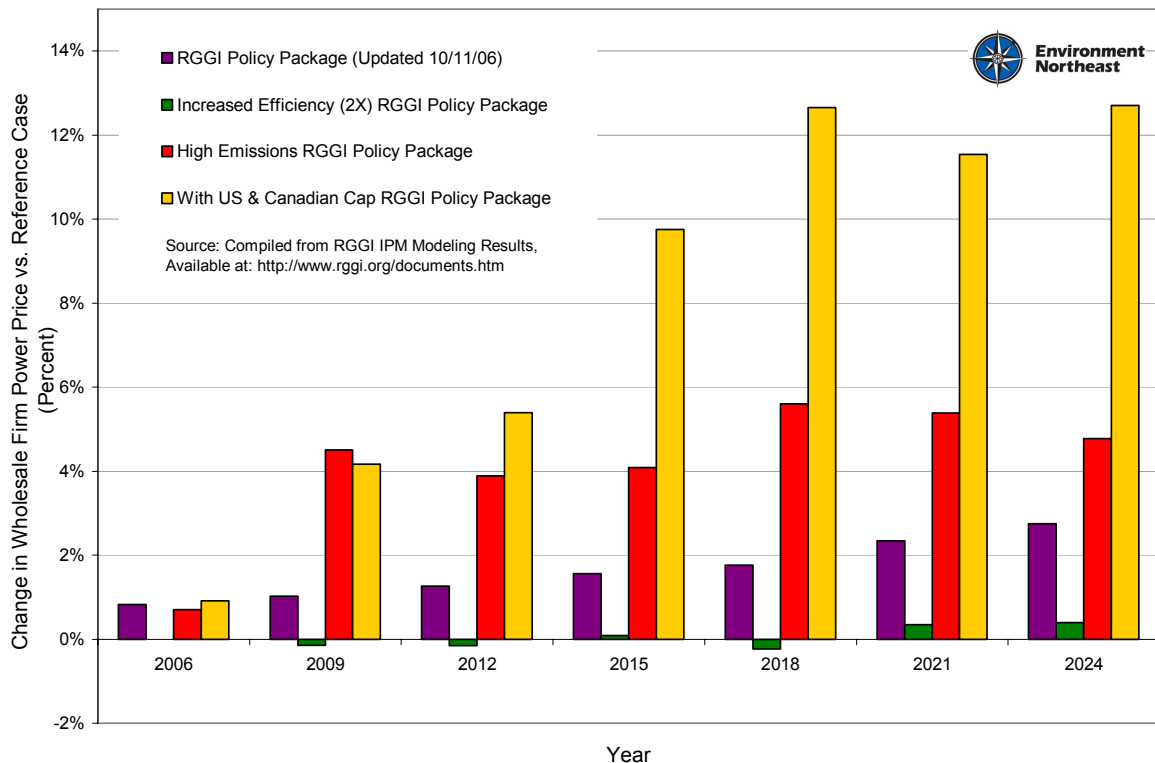


Figure 5: Forecasts of Changes in Wholesale Electric Power Percent Increases Due to RGGI



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. Environment Northeast 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.

Fossil fuel-fired

The RGGI model rule makes an important distinction between existing vs. new biomass plants that the Vermont rule has significantly altered. This change in eligibility creates an uneven playing field across the states and should be changed to ensure consistency across the region.

The Vermont regulation reads (page 11-12):

(ak) Fossil fuel-fired. With regard to a unit, the combustion of fossil fuel, alone or in combination with any other fuel, where the fossil fuel combusted comprises, or is projected to comprise, more than 50 percent of the annual heat input on a Btu basis during any year.

The RGGI Model Rule reads (page 12-13):

(ak) Fossil fuel-fired.

(1) With regard to a unit that commenced operation prior to January 1, 2005, the combustion of fossil fuel, alone or in combination with any other fuel, where the fossil fuel combusted comprises, or is projected to comprise, more than 50 percent of the annual heat input on a Btu basis during any year.

(2) With regard to a unit that commences operation on or after January 1, 2005, the combustion of fossil fuel, alone or in combination with any other fuel, where the fossil fuel combusted comprises, or is projected to comprise, more than 5 percent of the annual heat input on a Btu basis during any year.

The RGGI model rule definition was arrived at after much negotiation and was designed to ensure that new facilities that co-fired biomass and fossil fuels such as coal in large quantities would not have a large loop hole, allowing them to burn large quantities of fossil fuels without having to obtain allowances. The RGGI model rule still allows eligible biomass input and emissions to be exempt from having to obtain allowances (Note that this also needs to be fixed and is inconsistent in the Vermont rule).

Eligible Biomass

The RGGI Model Rule Subpart XX-6.5(b)(1) provides that regulated units may deduct from their total CO2 allowance obligation “any CO2 emissions attributable to the burning of eligible biomass...”. The Vermont Draft Rule has omitted this provision. By not allowing for deductions, the Draft Rule creates a major disincentive to co-firing with biomass, which can reduce CO2 emissions.

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 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.

Consistent with the above reasoning, the Model Rule defines eligible biomass as including (RGGI Model Rule at Subpart XX-1.2(ag), emphasis added):

sustainably harvested woody and herbaceous fuel sources that are available on a renewable or recurring basis (excluding oldgrowth 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 will be determined by the REGULATORY AGENCY.

ENE strongly recommends that the definition of eligible biomass and the provision allowing deductions from co-firing eligible biomass be restored to the Draft Rule to maintain consistency with the Model Rule.

For the sole purpose of implementing RGGI, “Eligible Biomass” could be handled in Vermont 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. If the Department feels that a detailed definition of “Sustainably Harvested” is premature at this point, the definition in the Model Rule, including the provision that “sustainably harvested will be determined by the Department”, would allow for the development of such a companion document at a later date.

ENE recommends including further specificity in the Draft Rule itself. 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”:

Subchapter 22-102 (xx) (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 Subchapter 22-807 of this Rule.

The most practical approach to tracking sustainably harvested wood is to use documentation from existing programs. For this reason, we recommend using certification programs, and in the case of smaller landowners, current use tax programs, as proxies for sustainability. These programs require long term management plans and in some cases penalties for land conversion

4. Voluntary Renewable Energy Market Set-Aside Allocation

Environment Northeast urges Vermont to include the optional set-aside for voluntary renewable purchases in their state rulemaking process (RGGI section XX-5.3(D)). For each control period, states can set aside some carbon credits and retire them at a set rate when it is verified that voluntary renewable energy purchases were made. Environment Northeast believes that Vermont should retire these credits to support the voluntary renewable market and to ensure that marketers can continue to claim that the program is reducing carbon emissions. It is our understanding that this set aside and retirement of credits would only represent a tiny fraction of the allowance budget. In Connecticut, which has a robust voluntary clean energy program, this voluntary requirement would comprise less than 1% of CT’s allocation (CT Clean Energy Fund calculation). This would be the only portion of RGGI allowances that would not be auctioned.

We appreciate the opportunity to comment on the development of RGGI in Vermont. 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 questions about this letter, which we hope provides some additional ideas to policy makers on next steps for RGGI. We look forward to working with the states to implement the RGGI rule in all the Northeastern states.

Sincerely,



Derek Murrow, Director of Policy Analysis
dmurrow@env-ne.org



Alice E. Liddell, Policy Analyst
aliddell@env-ne.org



**Environment
Northeast**

101 Whitney Avenue, New Haven CT 06510
203-495-8224 / www.env-ne.org
Rockport, ME / Portland, ME / Providence, RI / Boston, MA
Hartford, CT / New Haven, CT / Charlottetown, PE, Canada

Derek Murrow, Director Policy Analysis, 203-285-1946, dmurrow@env-ne.org
Alice Liddell, Policy Analyst, 203-495-8224, aliddell@env-ne.org
Ellen Hawes, Policy Analyst – Forestry, 207-761-4566, ehawes@env-ne.org

Environment Northeast is a nonprofit research and advocacy organization focusing on the Northeastern United States 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 environmental and economic sustainability of the region.