www.env-ne.org

Rockport, ME
Boston, MA
Providence, RI
Hartford, CT
Ottawa, ON
Canada

October 24, 2013

To: New Hampshire Department of Environmental Services

From: Peter Shattuck, ENE Director of Market Initiatives

RE: Proposed amendments of the Regional Greenhouse Gas Initiative (RGGI) Rules, Env-A 4600, *Carbon Dioxide Budget Trading Program*, Env-A 4700, *Carbon Dioxide Offset Projects*, Env-A 4800, and *Carbon Dioxide Allowance Auction Program*

On February 7th, 2013 states participating in the Regional Greenhouse Gas Initiative (RGGI) announced reforms that will improve RGGI's efficacy as a tool to address climate change pollution. Most importantly, states agreed to reduce the program cap to 91 million tons in order to lock in significant reductions in emissions in recent years. Furthermore, states agreed to reduce the cap annually through 2020 in order to ensure continuing reductions in emissions. We applaud New Hampshire for adopting these important improvements and strongly support the implementation of these reforms through revision of Env-A 4600, *Carbon Dioxide Budget Trading Program*, Env-A 4700, *Carbon Dioxide Offset Projects*, Env-A 4800, and *Carbon Dioxide Allowance Auction Program*. As we explain in full detail below, these RGGI program changes will produce significant new economic and environmental benefits for New Hampshire and its residents and businesses.

Necessary Reforms

As New Hampshire proceeds to implement changes to the RGGI program a number of additional reforms could make the program stronger, and should be considered independent of the current RGGI reforms. First, unsold and undistributed allowances must be retired at the end of each control period in order to provide market certainty and ensure that oversupply of allowances does not again undermine RGGI's effectiveness. Reforms to RGGI were needed in part because states lacked the capacity to dispose of unsold allowances that accrued since the program's launch and caused allowance prices to remain at the floor for most of 2011-2012. While the new cap addresses the existing over-supply of allowances, a similar over-supply could accrue in the future unless states are required to retire unsold allowances. This is particularly important in light of assumptions used to project allowance demand that are unlikely to occur over assumed timeframes, leading to less allowance demand than projected. Specifically, in modeling used to determine the new cap, states assumed that the Indian Point power plant would be taken off-line by 2015. Due to protracted regulatory proceedings needed to forcibly retire nuclear power plants, this closure is unlikely to happen by 2015, meaning that replacement generating capacity responsible for up to 9 million tons of annual emissions[1] will not be required in the timeframe assumed in modeling the new program cap. States are thus likely

[1] Assuming Indian Point's 2045 MW of capacity run at a 90% capacity factor (national average from EIA, http://www.eia.gov/electricity/annual/archive/03482009.pdf), Indian Point produces 16,122,780 MWh of electricity annually. Replacing this generation with natural gas units emitting 1,135lbs/MWh (national average from EPA http://www.epa.gov/cleanenergy/energy-and-you/affect/air-emissions.html) would generate 9.15 million tons of CO_2 annually.

overestimating emissions by up to 10% of the new cap, potentially creating another over-supply of allowances if Indian Point remains operational. We recognize that the Department of Environmental Services (DES) is prohibited by current statute from retiring unsold and undistributed allowances, and we recommend that DES work with the legislature to allow regulatory discretion to retire unsold and undistributed allowances in order to keep the RGGI market robust

During the next Program Review in 2016, states must also revisit the manner in which RGGI's cap declines. In New Hampshire's revised regulations (and in regulations proposed by other RGGI states to-date), the annual allowance budget reduction is calculated by subtracting 2.5% of the prior year's cap rather than 2.5% of the baseline year's cap. This is a departure from the initial RGGI program, and leads to fewer reductions in emissions over time. By 2050, annual reductions of 2.5% from the *prior year* yield a total reduction of 59%, compared with a 90% reduction when reducing 2.5% from the 2014 *baseline year*. (Additional detail provided below.)

Overall, implementing the proposed reduction in the RGGI cap to 91 million tons will strengthen RGGI's reputation as a model climate policy immediately, and revisiting the cap reduction in 2016 will assist New Hampshire and other states in achieving necessary long-term emission reduction targets.

RGGI Benefits

New Hampshire has realized significant benefits from RGGI to-date, and the state will realize far greater benefits by implementing recently agreed reforms and continuing to invest program revenue in energy efficiency.

Greenhouse gas emissions from power plants in the region have dropped by almost half since RGGI was formed. The 45% reduction in emissions from 2005 (when the initial RGGI cap was set) to 2012 demonstrates that emissions in the electric sector can come down quickly without raising costs.[2] Meanwhile, revenue from auctions of allowances has been invested in energy efficiency programs that reduce energy costs while increasing economic output and employment. RGGI-funded clean energy programs reduce expenditures for fossil fuels imported to generate power and heat our homes, thus making New Hampshire more competitive while reducing carbon emissions.

Annual Cap Reduction

RGGI's initial goal was to reduce emissions 10% from 2009 levels by the end of 2018. This target was implemented and codified through the cumulative cap level comprised of individual states' annual allowance budgets. These budgets were set at levels approximating 2009 emissions for the six years from 2009-2014. In each of the four years from 2015-2018 each state's allowance budget declined by a *fixed tonnage amount equivalent to 2.5% of the 2014 allowance budget*. By reducing state allowance budgets and the cumulative cap by a fixed tonnage amount states could arrive at a cap level 10% below the baseline by the end of 2018.

The following table (Table 1) describes RGGI's initial emission reduction trajectory (not including New Jersey). [Note that 2009-2014 allowance budgets remain at the same level.]

[2] Electricity prices in New Hampshire dropped 8% between September 2008 (before RGGI's first auction) and September 2012. Electric price and emissions trends from ENE Report *RGGI's Past and Future: Emissions Trends and Potential Reforms* are available at: http://www.env-ne.org/resources/detail/rggis-past-and-future-emissions-trends-and-potential-reforms

Table 1: Initial Allowance Budget and 2.5% Annual Decline from Baseline

ENE	2009	2014	2015	2016	2017	2018	Total
Total RGGI	165,184,246	165,184,246	161,054,640	156,925,034	152,795,428	148,665,821	-
Tonnage reduction	-	-	**4,129,606**	**4,129,606**	**4,129,606**	**4,129,606**	**16,518,425**
% reduction	-	0.0%	**2.5%**	**2.5%**	**2.5%**	**2.5%**	**10%**

The approach utilized by states to implement the annual reduction under the new cap is a departure from RGGI's initial approach and leads to fewer emissions reductions. Allowance budgets included in regulations implementing the new Model Rule utilize a different methodology to quantify the 2.5% annual decline in the cap. Instead of declining by a fixed tonnage quantity equivalent to 2.5% of the updated 2014 baseline (91 million tons for the region), the allowance budgets in New Hampshire's and other states' regulations decline annually by 2.5% of the previous year's allowance budget. This leads to smaller reductions each year, as described below (Table 2) for New Hampshire and RGGI as a whole (not including New Jersey).

Table 2: New Allowance Budgets with Less than 2.5% Annual Decline from Baseline

ENE	2009	2014	2015	2016	2017	2018	2019	2020	Total
New Hampshire	8,620,460	4,749,011	4,630,286	4,514,529	4,401,665	4,291,624	4,184,333	4,079,725	-
Tonnage reduction	--	3,871,449	**118,725**	**115,757**	**112,864**	**110,041**	**107,291**	**104,608**	**457,387**
% reduction	--	44.9%	**2.5%**	**2.4%**	**2.4%**	**2.3%**	**2.3%**	**2.2%**	**14.1%**
Total RGGI	165,184,246	91,000,000	88,725,000	86,506,875	84,344,203	82,235,598	80,179,708	78,175,215	-
Tonnage reduction	--	**74,184,246**	**2,275,000**	**2,218,125**	**2,162,672**	**2,108,605**	**2,055,890**	**2,004,493**	**12,824,785**
% reduction	--	**44.9%**	**2.5%**	**2.4%**	**2.4%**	**2.3%**	**2.3%**	**2.2%**	**14.1%**

Indexing the reduction of the cap to the prior year has the potential to undermine RGGI's capacity to contribute to the state's emissions-reduction objectives. New Hampshire's Climate Action Plan, requires the state to reduce economy-wide emissions 25% below 1990 levels by 2020, and 80% below 1990 levels by 2050. Building on the program's strong track record, and the capacity for the electric sector to reduce emissions at lower cost than other sectors,[3] RGGI should be a cornerstone of New Hampshire's plan to achieve long-term emissions reductions.

Utilizing RGGI to achieve long-term targets requires the establishment of clear market signals reflected in the RGGI cap. The current cap reduction approach would only deliver a 59% reduction in emissions from the 2014 baseline, potentially leaving cost-effective reductions on the table. If states address this issue in 2016 by determining subsequent 2.5% annual reductions from the baseline year, RGGI could deliver a 90% reduction by 2050, helping to address the threat of climate change and putting states on track to meet their respective statutory commitments.

Thank you for your continuing leadership in developing balanced policies that reduce emissions, promote economic growth, and demonstrate viable mechanisms to address the threat of climate change.

[3] EPA modeling of the Waxman-Markey *American Power Act of 2010* found that the majority of emissions reductions were delivered by the electric sector, see: http://www.epa.gov/climatechange/Downloads/EPAactivities/EPA_APA_Analysis_6-14-10.pdf

Sincerely,

Peter Shattuck,
ENE Director of Market Initiatives