



# Making the Regional Greenhouse Gas Initiative work for New Hampshire

December 2007

As the realities of climate change become increasingly clear, New Hampshire is preparing to implement a major policy initiative to reduce carbon dioxide (CO<sub>2</sub>) emissions from power plants and lessen our dependence on fossil fuels.

**The Regional Greenhouse Gas Initiative (RGGI) is a cooperative agreement among ten states in the Northeast to reduce CO<sub>2</sub> emissions to a target level that is 10 percent lower than 2003 – 2004 emissions levels by the year 2018.**

## RGGI Goals

Environmental and energy regulatory agencies in the ten participating states have been working together to design a “cap-and-trade” program focused initially on reducing CO<sub>2</sub> emissions from power plants that run on fossil fuels (e.g., oil, coal, and natural gas). Facilities included in the plan are 25 megawatts (MW) or larger.

In the program’s first phase, from 2009 to 2014, the number of available RGGI CO<sub>2</sub> allowances would be capped at a level equivalent to 2003 – 2004 CO<sub>2</sub> emissions from power plants. In the second phase, the amount of available CO<sub>2</sub> allowances would be further reduced by 2.5 percent each year, for a 10 percent reduction by 2018.

## The Proposed Design for New Hampshire

Although RGGI’s overarching parameters are consistent in all ten states, each state has the opportunity to customize its RGGI design to best fit its specific needs. Legislation has been drafted in New Hampshire that outlines a proposed approach for our state.

As currently written, New Hampshire’s draft legislation closely follows the model designed by the ten-state RGGI working group.

- A finite number of “carbon allowances” would be allotted to New Hampshire each year, based initially on historic power plant emissions levels
- 100 percent of New Hampshire’s carbon allowances would be sold in open auctions, except for those allowances associated with the state’s current Clean Power Act requirements
- Any interested party could bid on the auctioned allowances
- Proceeds from the auctions would go toward the Greenhouse Gas Emissions Reduction Fund to support a range of energy-efficiency and carbon-reduction programs, to be determined by the State

## Opportunities for Improvement

The draft RGGI legislation proposed for New Hampshire provides an important platform for discussion among state legislators and stakeholders. However, opportunities remain to modify the design to better fit the needs of our state.

PSNH believes that, with the following important modifications, New Hampshire’s design can better achieve reductions in carbon emissions, while at the same time introducing safeguards to ensure an adequate supply of electricity and less volatile prices for New Hampshire consumers. PSNH’s proposed modifications would also make certain that every dollar paid by electricity customers toward RGGI would remain in our state to fund additional energy-efficiency and carbon-reduction programs. Our intention is to ensure that New Hampshire’s RGGI design can withstand potential energy market disturbances, and serve as a successful model for a future national greenhouse gas initiative.

### Challenge #1:

## The Development of a Secondary Market

Under RGGI's cap-and-trade program, generators must purchase RGGI CO<sub>2</sub> allowances equivalent to their actual emissions of CO<sub>2</sub> for a calendar year. Without these allowances, a power plant must stop operating. Although the cap-and-trade approach has worked successfully in the past (e.g. nitrogen oxide and sulfur dioxide programs), those programs allotted the majority of available allowances specifically to power generators. In contrast, New Hampshire's proposed RGGI design calls for the state's carbon allowances to be auctioned to the highest bidders, regardless of whether a bidder produces electricity or not. This experimental approach is expected to lead to the development of a secondary market for allowances, wherein a "carbon broker" could:

- Purchase allowances and resell them at higher prices to power generators who need them to operate
- Resell allowances to a party that wants to be "carbon neutral" in its operations, but doesn't actually require allowances
- Retire the allowances permanently

As a result, sufficient allowances may not be available to the power generators that produce electricity to meet customers' needs. This scarcity, coupled with the absence of a price cap on allowances sold in the secondary market, could result in higher, unpredictable energy costs to customers – and, possibly, unpredictable energy supply. Moreover, with the creation of a secondary market, carbon brokers could receive the bulk of the money that customers pay toward RGGI, instead of State carbon-reduction programs.

**Proposed Solution: In lieu of an auction, PSNH proposes that the State sell 75 percent of New Hampshire's carbon allowances to Load Serving Entities (i.e. utilities and generators that supply power to NH consumers). Allowances would be sold to LSEs at the average auction price established in the nine other RGGI states. The remaining 25 percent of the allowances would be allocated to the State to distribute at will. This method would ensure a predictable supply of allowances, and minimize the potential for secondary-market price inflation. It would also provide the State with substantial revenues to fund energy-efficiency and carbon-reduction programs, as well as flexibility in determining future uses for its allowances. PSNH welcomes alternative options that meet the same objective.**

### Challenge #2:

## Price Volatility & Supply Shortages

Today, few viable options exist to help New England states comply with RGGI goals.

- New England relies predominantly on fossil-fuel based power plants
- All of New England's existing plants are needed to meet customers' growing demand for electricity
- As yet, no large-scale technology exists to control the emission of carbon dioxide from power plants, and the development of viable new carbon-control technology is not foreseeable within the RGGI timeline for implementation in New Hampshire
- Major new carbon-neutral resources proposed in New England (such as the Cape Wind Project in Massachusetts) face opposition from neighbors and appear to be years away from development
- Importing carbon-free energy from outside of New England will require major upgrades to the region's transmission infrastructure, which will take years to develop

With all of these challenges impacting the region's ability to produce sufficient energy while meeting RGGI goals, New Hampshire consumers could face substantial energy supply shortages and price volatility – especially in the near-term.

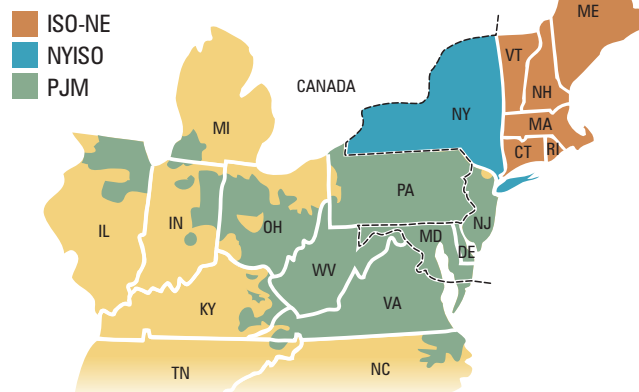
**Proposed Solution: PSNH proposes establishing an Alternative Compliance Payment structure for New Hampshire generators to purchase carbon allowances from the State if there are no allowances available on the secondary market, or if the secondary market price is exorbitant. This alternative payment would have a set price (PSNH is suggesting a price of about \$15 per ton, based on a University of New Hampshire economic analysis). Through this provision, New Hampshire customers would be protected from not having enough electricity to meet their needs. PSNH is open to considering other ways to address this concern.**

### Challenge #3: Emergency Situations

As currently written, New Hampshire’s proposed RGGI design does not include provisions to address emergency situations. Inflexible restrictions on electricity production could prevent New Hampshire families and businesses from securing a resource that they rely on to fulfill basic needs, at a time when the state may be facing extreme or dangerous conditions.

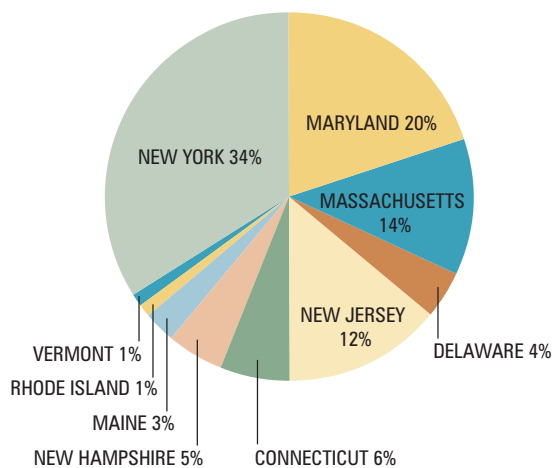
**Proposed Solution: PSNH proposes the establishment of safeguards to ensure adequate energy supply in extreme situations. An “emergency supply waiver” provision would allow generators to operate with or without available allowances in the event of an extraordinary regional power shortage. The implementation of such a waiver would be triggered by an ISO-New England declaration of a power supply emergency.**

### New England’s energy supply situation is very different than other RGGI states



- New England is dependent on its own generating plants and limited energy imports from NY, New Brunswick and Hydro Quebec
- NY, DE, NJ and MD border other energy markets which are not subject to RGGI and have ready access to additional energy supply; meeting customer demand while achieving RGGI compliance is not as significant a challenge in these states as it is in New England

### New Hampshire’s CO<sub>2</sub> Allowances Represent 5% of the Region’s Total Allowances (2009 – 2014)



RGGI REGION	188 MILLION TONS
NEW ENGLAND	53 MILLION TONS
NEW HAMPSHIRE	8.6 MILLION TONS

### Making RGGI work for New Hampshire

PSNH has a long history of working cooperatively with state, environmental, business, and community leaders to find creative, successful solutions to energy and environmental challenges. As with these past accomplishments, success with RGGI lies in working collaboratively to ensure an objective understanding of the challenges and potential risks involved.

PSNH is committed to reducing CO<sub>2</sub> emissions and has taken steps already to do so. The company believes that, with a carefully designed program, this goal can be achieved in a way that continues to provide New Hampshire customers with both a reliable electricity supply and continued economic viability.



**Public Service  
of New Hampshire**

The Northeast Utilities System