



# New England Ratepayers Association

## Policy Brief on New Hampshire Energy Policy January 2015

### **Summary**

New Hampshire and all of New England is facing some of the most challenging public policy decisions in recent memory—what to do about ever-rising electricity prices and their impacts on businesses and families. This brief reviews the results of recently implemented public policies and makes suggestions as to what steps New Hampshire’s elected officials could take to address the current energy crisis.

### **Current Environment**

It is clear that the policies of the past have not led us to lower electricity rates as promised. New Hampshire has lost nearly 14,000 manufacturing jobs<sup>1</sup> in the past decade and GDP growth is virtually non-existent. We have seen manufacturers like Sturm, Ruger & Company (North Carolina) and Foss Manufacturing (Georgia) expand to states with significantly lower energy prices. Op-Eds<sup>2</sup> like those written by Whelen Engineering President John Olson have profiled the challenges faced by New Hampshire manufacturers in a global marketplace because of high electricity costs. State Senator David Watters recently remarked<sup>3</sup> at an energy forum in Dover that the Dover area lost a potential manufacturer specifically because of high electricity costs. Recent and likely pending retirements of power plants will remove 8,000 MW (25%) of electricity generating capacity from the New England marketplace—all of it base load or intermediate (load-following) power. That electricity is going to need to be replaced, but regional opposition to energy projects is making that a difficult and in some cases more expensive process. The pending retirements are going to result in significant increases in Forward Capacity Auction (FCA) payments to generators. The most recent auction saw a doubling of capacity payments to in excess of \$3 billion and some analysts expect the next auction to nearly double

---

<sup>1</sup> [http://data.bls.gov/timeseries/SMS33000003000000001?data\\_tool=XGtable](http://data.bls.gov/timeseries/SMS33000003000000001?data_tool=XGtable)

<sup>2</sup> <http://www.nhbr.com/November-28-2014/Weve-got-to-address-the-energy-crisis-now/>

<sup>3</sup> [http://www.fosters.com/apps/pbcs.dll/article?AID=/20141122/GJNEWS\\_01/141129708/0/SEARCH](http://www.fosters.com/apps/pbcs.dll/article?AID=/20141122/GJNEWS_01/141129708/0/SEARCH)

again to \$6 billion. If New Hampshire is to regain a foothold on the New England economy that once made it the envy of the region, it needs to take steps to reduce the cost of doing business in the state, and reducing electricity costs is of the utmost importance.

## **Policies and Impacts**

### **Renewable Portfolio Standards**

Implemented in 2008 in New Hampshire, Renewable Portfolio Standards require electricity suppliers to purchase a mandated portion of Renewable Energy Certificates (RECs) from specified classes of renewable energy generating sources. Since its implementation, the New Hampshire RPS has cost ratepayers in excess of \$115 million in additional electricity charges—with over \$55 million of that from Alternative Compliance Payments (ACPs)<sup>4</sup>, which are paid by electricity suppliers when Renewable Energy Certificates are not available. These numbers do not reflect the additional cost of above-market Power Purchase Agreements (PPAs) that are often bundled with RECs—the PPAs are considered proprietary and are not always publicly available. One recent example of the impact of above-market PPAs would be the agreement between PSNH and the Burgess Biomass Plant in Berlin, which, according to some estimates, will cost ratepayers and additional \$125 million over the term of the contract.<sup>5</sup>

### **Regional Greenhouse Gas Initiative (RGGI)**

RGGI is a regional compact between the six New England states, New York, Maryland and Delaware that places a tax on carbon emissions from fossil-fuels. New Jersey was originally part of RGGI, but left the compact several years ago. To date, RGGI allowances have totaled nearly \$2 billion dollars paid by ratepayers via electricity payments made to generators. Many states, including New Hampshire, have raided RGGI funds, pilfering in excess of \$150 million from the auction proceeds to fill donut holes in state budgets—like New Hampshire did in 2010 for \$3.1 million<sup>6</sup>. New Hampshire statute now requires that all proceeds above \$1 from each allowance be rebated back to ratepayers. In 2012, RGGI emissions were down to 91 million short tons and the cost of allowance fees were near the floor price of \$1.89<sup>7</sup> and appeared stuck there. The increase in natural gas reserves and subsequent low natural gas prices as a result of hydraulic fracturing in places like Pennsylvania’s Marcellus Shale led to natural gas generation displacing other fossil fuel generation resources resulting in lower emissions. But in 2013, at the recommendation of RGGI Inc. and environmental groups, participating states agreed to tighten the cap from 165 million tons to 91 million tons despite the fact that 2012 emissions were already at 91 million

---

<sup>4</sup> [http://www.puc.state.nh.us/sustainable%20Energy/Renewable\\_Portfolio\\_Standard\\_Program.htm](http://www.puc.state.nh.us/sustainable%20Energy/Renewable_Portfolio_Standard_Program.htm)

<sup>5</sup> <http://nhpr.org/post/berlin-biomass-plant-fully-operational-what-cost-ratepayers>

<sup>6</sup> <http://www.newjerseynewsroom.com/nation/cash-strapped-states-like-nj-use-cap-and-trade-revenue-to-fund-budgets>

<sup>7</sup> [https://www.rggi.org/market/co2\\_auctions/results/auctions-1-25?id=220](https://www.rggi.org/market/co2_auctions/results/auctions-1-25?id=220)

tons. The result of this unnecessary reduction in the allowance cap increased the cost of allowances to \$5.21 per ton<sup>8</sup>--again paid for by ratepayers through the energy charges paid to generators. Ratepayers in RGGI states will needlessly pay an additional \$292 million annually in electricity rates (or more if the cost of allowances increase) to “achieve” carbon reductions that have already been met.

### **Energy Efficiency**

New Hampshire invests in Energy Efficiency via two main programs: the CORE Energy Efficiency Programs, which are managed by New Hampshire’s distribution utilities and are financed through the Systems Benefit Charge<sup>9</sup> (SBC) at \$.0018 per kWh; and through RGGI’s Energy Efficiency Fund at \$1 per allowance. Through September of this year program expenses for CORE programs have totaled in excess of \$21 million dollars, nearly \$4 million of which is from gas utilities, the remainder from electric utilities. The PUC is currently working on an Energy Efficiency Resource Standard (EERS), which is expected to increase the amount of public financing for energy efficiency programs through either higher SBC charges, removal and reallocation of the \$1 threshold rebated to ratepayers for RGGI allowances or via some other funding source such as a direct tax on home heating fuel. Public financing for energy efficiency programs prevents the growth of private financing for energy efficiency projects and leads to significant cost-shifting of ratepayer financed energy efficiency. Implementing an EERS would be regressive and negatively impact middle and lower-income earners more than those at the higher end of the income scale. If businesses and individuals aren’t willing to make energy efficiency upgrades based on a net present value basis, especially during this time of high electricity costs, then we shouldn’t be financing them through ratepayer funds. One mechanism that should not be pursued is decoupling, which essentially pays utilities for the electricity they would have delivered without energy efficiency measures. This is a terrible policy that hits ratepayers twice: once for the cost of the EE program and again for decoupling compensation to utilities. The focus should be on helping low-income individuals and families through bill assistance, weatherization and other incentives available through the current CORE programs.

### **Net Metering**

Net metering is a mechanism that allows for “behind the meter” generators (mainly solar) to receive credits (or in some instances, even payments) for the energy that they generate and contribute to the grid. Generous federal and state subsidies in the form of investment/production tax credits, direct rebates on installations, Renewable Energy Certificates (RECs) and payments at retail instead of wholesale rates have led to a marked increase in distributed generation throughout New Hampshire and New England. Currently, there is a 50 MW total cap on net metering allowed in New Hampshire. One quandary facing policy-makers is how to fairly charge those who participate in net metering for accessing the grid when their solar panels (or other renewable generation) aren’t generating.

---

<sup>8</sup> [https://www.rggi.org/market/co2\\_auctions/results/auction-26](https://www.rggi.org/market/co2_auctions/results/auction-26)

<sup>9</sup> <http://www.puc.state.nh.us/electric/coreenergyefficiencyprograms.htm>

Infrastructure is constantly being updated, whether it be transmission/distribution lines, transformers, sub-stations, etc.—it is vital that all users of the grid pay for maintenance and improvements. Due to the low capacity factors of solar (15-20%) and wind (25-30%), those who net meter will need to access the grid approximately 80% of the time and they shouldn't be subsidized by other ratepayers through some form of cost shifting.

## **Natural Gas**

One of the most critical issues facing New Hampshire's legislators is focusing on ways to remove barriers to the expansion of natural gas pipeline in New Hampshire as well as the rest of New England. Abundant natural gas in the nearby Marcellus Shale has the potential to provide low-cost fuel to the region for years to come. However, New Hampshire should not place all of its eggs, especially when it comes to electricity generation, in the natural gas basket. Policy decisions in other states like the current ban on fracking in New York State<sup>10</sup>, as well as a potential severance tax on natural gas extraction in Pennsylvania<sup>11</sup> and increased national exports<sup>12</sup> in the form of liquefied natural gas (LNG), could all increase the cost of natural gas. There are a number of natural gas pipeline expansion projects proposed throughout New England but to this point it appears that no natural gas electricity generators have committed to firm capacity—meaning that all of the firm capacity in the region is allocated to local distribution companies (LDCs) for home heating purposes. Essentially, any gas available to generators from expanded gas pipelines will be available on the secondary gas market, with supplies still constrained during very cold weather, regardless of the amount of pipeline expansion in the New England. Policymakers should resist the urge to finance pipeline expansion via a regional tariff on electric ratepayers. Not only would this result in protracted litigation from non-gas-fired generators, but could prove disastrous if the region experiences unforeseen national and state policy decisions that dramatically increase the cost of natural gas.

## **Divestment**

Whether or not PSNH should divest of its remaining generation assets has been an issue in New Hampshire for over a decade. Considering the volatility with the existing electricity markets and the fact that currently PSNH has one of the lowest energy charges in New England, divestment at this time may not be prudent for PSNH's ratepayers. It has been reported that Merrimack Station saved PSNH ratepayers in excess of \$100 million dollars in energy costs last winter alone.<sup>13</sup> Should divestment become a reality, then every effort should be made to ensure that the Merrimack Station coal plant remain in operation—either through a subsidiary of PSNH or another merchant generator. If New

---

<sup>10</sup> <http://www.forbes.com/sites/jamesconca/2014/12/27/new-york-fracking-ban-contrary-to-states-energy-future/>

<sup>11</sup> <http://www.wsj.com/articles/pennsylvania-weighs-new-tax-on-natural-gas-drilling-1403640002>

<sup>12</sup> <http://www.wsj.com/articles/SB10001424052702303725404579459313806209976>

<sup>13</sup> <http://www.nhbr.com/July-11-2014/New-PSNH-president-brings-a-different-tone-to-the-job/>

England continues to shutter non-gas fired generators (like Brayton Point in Massachusetts and Vermont Yankee), our reliance on natural gas will only increase as will costs to ratepayers. In addition, the benefits of PSNH's generation fleet which has provided hundreds of millions of dollars of value to PSNH customers, may be permanently lost.

### **Canadian Hydropower**

Despite claims to the contrary, we will never fill the expected 8,000 MW deficit in New England's electricity capacity through energy efficiency and distributed generation. For a variety of economic and regulatory reasons, New England will not be building new oil, coal or nuclear plants in the near future. This leaves two options for new base load power: natural gas and imported Canadian hydroelectricity. Natural gas pipeline capacity constraints into New England have been well-documented, but what hasn't received enough publicity is other policies that will restrict the building of new natural gas electric generation plants. Massachusetts and Connecticut each implemented a Global Warming Solutions Act (GWSA) in 2008 and these policies have already been used to delay the Footprint natural gas plant in Salem, Massachusetts<sup>14</sup>. We have recently seen potential natural gas generators suspend projects in Methuen, Massachusetts<sup>15</sup> and a proposed plant in Oxford, CT<sup>16</sup> has been fighting local opposition for over a decade. With new pipeline proposals focused on the population centers in Connecticut and Massachusetts, the GWSA in each state will likely present significant barriers to the development of natural gas-fired electricity plants.

The controversy surrounding Northern Pass resulted in the drafting, debating, amending and ultimate passage of SB 245, which reformed New Hampshire's Site Evaluation Committee (SEC). It should be before the SEC that the merits of proposed energy projects, like Northern Pass, be debated, not in the legislature. SB 245 added public members to the decision making process as well as calling for the clarification of existing rules (that have received preliminary approval)—all guided by participation from the public. Regardless of the outcome of Northern Pass, the expansion of Canadian hydropower is going to be vital to New England's electricity grid and is the most promising proposal to significantly lower electricity costs.

---

<sup>14</sup> [http://www.bizjournals.com/boston/blog/mass\\_roundup/2014/05/the-gas-fired-power-plant-planned-for-salem-likely.html?page=all](http://www.bizjournals.com/boston/blog/mass_roundup/2014/05/the-gas-fired-power-plant-planned-for-salem-likely.html?page=all)

<sup>15</sup> <http://www.argusmedia.com/pages/NewsBody.aspx?id=967160&menu=yes>

<sup>16</sup> <http://www.ctpost.com/news/article/Opposition-growing-to-Oxford-power-plant-5899053.php>

## **Recommendations**

- Freeze RPS at 2014 levels and combine the four classes of renewables into one. Freezing RPS at current levels will send a signal to the market that we aren't going to continue to subsidize intermittent, expensive and unreliable renewable power sources at the expense of lower cost base load power projects. Consider that current "market-based" programs like RPS contributed to the departure of a price taking power plant like Vermont Yankee and have incentivized a project like Cape Wind and its \$.20 per kWh. Collapsing the classes will increase competition for RECs among renewable generators and should eliminate the need for Alternative Compliance Payments, which are paid by electricity providers when they can't procure the requisite RECs for each of the current four classes of renewables—costs that eventually flow through to ratepayers.
- Rebate all RGGI allowances to ratepayers. If the region is going to impose a tax on carbon it should be revenue neutral and all of the proceeds should be put back in the pockets of the families and businesses who pay the bills.
- Do not implement a state EERS. If the current high electricity prices aren't enough incentive for businesses (and families) to undertake energy efficiency upgrades on their own, then the state shouldn't shift costs from one group of ratepayers to another to finance these projects. Continued public financing of energy efficiency will only undermine the potential and necessary growth of private investment.
- Net metering should be continued to be evaluated to make sure that the costs of transmission and distribution aren't being inequitably transferred from those with distributed generation to those without it. Those who net meter should be compensated for excess generation at wholesale rates and should be given credit for transmission charges that they don't use, but should be required to pay for the distribution network that they utilize when feeding power back into the grid or receiving power from the grid.
- Electricity Market Reform. Advocates of allowing (free or otherwise) markets to solve what ails our current electricity crisis are facing a difficult task. The abundance of "market-based" programs have distorted the marketplace and forced competitive base load power plants like Brayton Point and Vermont Yankee out of the marketplace. Out-of-market solutions like the Winter Reliability Program<sup>17</sup> employed by ISO-NE have helped keep the lights on, but have kept inefficient and expensive oil plants operating when they would otherwise have retired. To have a true market solution to the region's energy grid would likely mean that we would need to reach scarcity conditions (brown/blackouts), which would be untenable from a public policy perspective. However, if the region continues down the current path, New England's grid will be filled with a generation fleet of too many intermittent resources supported by expensive peaking units and the high electricity prices that accompany those resources.

---

<sup>17</sup> <http://www.iso-ne.com/committees/key-projects/winter-2013-2014-reliability-solutions>

One hurdle facing policy makers is how to drive natural gas electricity generators to commit to firm pipeline capacity. ISO-NE is beginning a Pay-for Performance<sup>18</sup> program that will penalize non-performance by electricity by essentially transferring capacity payments from generators who under perform during shortage conditions to those who over perform. ISO could additionally penalize for non-performance in the energy markets, which might incent natural gas generators to commit to capacity in order to avoid steep penalties for non-performance during cold weather when natural gas capacity is historically constrained. However, this could also lead to reduced Capacity Supply Obligation (CSO) commitments from natural gas generators—leaving New England lacking in electricity capacity.

Would the region be better off abandoning the current capacity and energy markets and moving towards a market where utilities and generators enter into long-term bilateral contracts, which will facilitate long-term natural gas capacity commitments by natural gas generators? Utilizing this approach, coupled with freezing renewable portfolio standards might prevent lower cost generators like Vermont Yankee from being displaced in the market by more expensive renewable resources.

It is all-too-apparent that the status quo of New England’s electricity grid is untenable—as ISO has warned us many times. It is time for policy makers to ask a simple question when it comes to writing legislation that affects the price of electricity—Will this legislation lower the cost of electricity to the businesses and families who pay the bills? The answer to that question should always be yes. Too often the region has enacted policies whose answer to that very question is “no” and it has left ratepayers in the current state of high prices and dwindling base load capacity options.

### **About NERA**

NERA is a non-profit advocacy group focused on promoting sound public policy that protects utility customers, both families and businesses, and lowers the cost of regulated services. Lower cost energy, water, and telecommunications services in New England will be an important driver for keeping the region’s economy competitive and retaining and returning manufacturing and high tech jobs for the 21st century.

**Please contact NERA if you have any questions about these issues or would like additional information. You can learn more about NERA, ratepayer issues and become a member at [www.neratepayers.org](http://www.neratepayers.org)**

---

<sup>18</sup> <http://www.iso-ne.com/committees/key-projects/fcm-performance-incentives>