



February 7, 2016

Testimony before the Connecticut General Assembly's  
Energy & Technology Committee

on

Proposed Senate Bill 106, *An Act Concerning Zero-Carbon Generating Facilities  
and Achieving Connecticut's Greenhouse Gas Emissions Mandated Levels*

Co-chairs Reed, Winfield, Formica, and ranking member Hoydick and members of the Energy & Technology Committee, thank you for the opportunity to testify today. My name is Kevin Hennessy and I am the Director of State Policy in New England for Dominion. I am here today to express Dominion's support for Proposed Senate Bill 106, *An Act Concerning Zero-Carbon Generating Facilities and Achieving Connecticut's Greenhouse Gas Emissions Mandated Levels*.

**I. Dominion**

Dominion is one of the nation's largest producers and transporters of energy, with a portfolio of approximately 26,400 megawatts of generation, 14,600 miles of natural gas transmission, gathering and storage pipeline and 6,600 miles of electric transmission lines. Dominion operates one of the nation's largest natural gas storage systems with 1 trillion cubic feet of storage capacity. We also serve more than 6 million utility and retail customers.

**II. Dominion in Connecticut**

**a. Millstone Power Station**

Dominion is the owner and operator of the Millstone Power Station in Waterford, CT. Millstone is the largest (2,111 MWs) and one of the most reliable and important power stations in New England. It is also greenhouse gas emissions free<sup>1</sup>.

Dominion purchased the Millstone Power Station in 2001 for \$1.3 billion via a state-sanctioned auction. Since then, Dominion has invested more than \$1.2 billion in capital toward safety, environmental, efficiency and reliability upgrades. These investments have benefited ratepayers by producing low-cost, around-the-clock, carbon-free electricity. Today, Millstone's typical annual output is greater with two operational units than it was the decade before Dominion purchased the plant when the prior owner operated three units. This increased, efficient output is the equivalent of building a virtual 650 MW carbon-free, around-the-clock power station. By

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<sup>1</sup> Attached as exhibit A is the executive summary of a report conducted by the Analysis Group in December, 2016 quantifying Millstone's energy and environmental importance to Connecticut and the region.



contrast a 650 MW natural gas unit operating around-the-clock would produce more than 2.5 million tons of greenhouse gas annually, and a coal unit of similar size would produce more than 5 million tons of greenhouse gas.

Millstone is not only a critical carbon-free facility in Connecticut; it is also an economic engine. Dominion employees approximately 1060 full-time employees at Millstone with an average payroll (salary, overtime and benefits) of \$168,365. Additionally, Millstone employs hundreds of contractors and supports approximately 4000 jobs annually. Moreover, Millstone produces more than \$1.5 billion annually in economic impacts for Connecticut.<sup>2</sup>

Dominion is proud of its commitment to Connecticut. Annually, we purchase approximately \$200 million of goods and services from Connecticut-based vendors. Additionally, in the last six years, Dominion has donated over \$6 million to Connecticut's non-profit organizations.

#### **b. Dominion Bridgeport Fuel Cell**

In December, 2012, Dominion acquired the Dominion Bridgeport Fuel Cell project in Bridgeport, CT. At 14.9 MW, it was the largest fuel cell power plant in North America when it began commercial operations in December 2013. This project was the result of collaboration and cooperation between Dominion, FuelCell Energy, the state of Connecticut and the city of Bridgeport. The project was developed by FuelCell Energy and is part of the state's Project 150 initiative – a legislative program that sought to increase the amount of renewable energy installed in Connecticut by 150 MWs. Over the fifteen-year life of the project it will be responsible for 161 jobs in Connecticut – mostly in manufacturing at FuelCell Energy's manufacturing plant in Torrington, CT and in construction at the site in Bridgeport. Shortly after Dominion's purchase of the project, Danbury headquartered Fuel Cell Energy announced that 50 additional manufacturing jobs were immediately being created directly attributable to the Dominion Bridgeport Fuel Cell facility and one other project. Dominion Bridgeport Fuel Cell was built on a former abandoned Brownfield site.

#### **c. Somers Solar Center**

Dominion acquired the Somers Solar Center in October 2013. The origins of the project stem from an energy law enacted by the Connecticut legislature in 2011. Based on that law, the Connecticut Department of Energy and Environmental Protection issued a request for proposals in December 2011 for the development of 10 megawatts of renewable energy to be sold under contract to the state's two major utilities. The Somers' proposal was one of two that were successful from among 21 entrants.

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<sup>2</sup> Attached as exhibit B is a report conducted by Chmura Economics & Analytics in October, 2016 quantifying Millstone's economic impact to Connecticut.



The Somers Solar Center, built by Prime Solutions Inc., a Connecticut contractor, occupies 50 acres. During construction, there were 80 jobs attributed to the site. It consists of 23,150 Kyocera solar panels that generates roughly 5 megawatts of alternating current, or enough to power approximately 1,400 homes. The electricity goes to Connecticut Light & Power customers under a 20-year power purchase agreement.

### **III. Proposed Senate Bill 106, An Act Concerning Zero-Carbon Generating Facilities and Achieving Connecticut's Greenhouse Gas Emissions Mandated Levels**

#### **a. Cheaper**

According to the most recent data available from the U.S. Energy Information Administration (November 2016), Connecticut has the highest residential retail electric rates in the contiguous United States – 20.1 cents/kWh.<sup>3</sup>

According to Connecticut's Public Utility Regulatory Authority, the two investor owned utilities in Connecticut charge their Standard Offer residential customers 8.1 cents/kWh and 9.4 cents/kWh for the generation portion of their retail electric rates.<sup>4</sup>

At the same time, New England just achieved a record low price for wholesale electric generation in 2016 - 3 cents/kWh.<sup>5</sup>

Ignoring the high delivery charges for electricity customers in Connecticut, something is wrong with this picture. Ratepayers pay high prices while baseload generators, such as coal, oil and nuclear, are shutting down prematurely because they cannot sustain operations in the current market construct.

To this Committee's credit, last year its leaders recognized this conundrum and decided to do something about it. They worked on legislation that would reduce retail electric rates via a state run competitive procurement. The Committee should revisit this same concept this year.

The concept was very simple and pro-consumer. Since 2011, when the legislature created the Department of Energy & Environmental Protection (DEEP), it has also granted DEEP the authority to pursue multiple competitive processes to serve retail electric customers directly. However, to date, those solicitations have been limited in scope. They have only allowed Natural Gas, Large-Scale Hydro and Class I Renewable resources the ability to compete. This does not make sense. If Connecticut wants the lowest-cost, longest-term resource that also meets

<sup>3</sup> [https://www.eia.gov/electricity/monthly/epm\\_table\\_grapher.cfm?t=epmt\\_5\\_06\\_b](https://www.eia.gov/electricity/monthly/epm_table_grapher.cfm?t=epmt_5_06_b)

<sup>4</sup> <http://www.energizect.com/compare-energy-suppliers/residential-generation-rates>

<sup>5</sup> <https://www.iso-ne.com/isoexpress/web/reports/pricing/-/tree/zone-info>



its environmental and economic goals, the solicitation process has to be expanded. Broadening the list to include nuclear power, among others, will encourage more competition and lower costs.

Currently, Dominion sells Millstone's output in long-term bilateral agreements to hedge funds and other financial institutions. Dominion likes the stability of knowing it has a stable price for Millstone's output so that we can focus on operations rather than the volatility of the spot market.

Last year's proposed legislation would have allowed Millstone the opportunity to compete to sell its power directly to Connecticut consumers via their utilities. The legislation explicitly stated that a winning bid would only be selected if it was in the ratepayers' best interest. The process would have been overseen by DEEP, the Attorney General's Office, the Office of the Consumer Counsel and PURA. They were not mandated to select a winner and could only do so if it was beneficial for ratepayers. Moreover, they were not limited to how many winners there could be. They could have chosen all of the above if they all benefited ratepayers. If Millstone was one of the successful bidders, Connecticut would have essentially cut out the middleman. Millstone's in-state, carbon-free, around-the-clock power would have gone directly to Connecticut consumers instead of hedge funds and financial institutions. That's a good way to drive down retail electric rates.

Competitive solicitations and retail rates are clearly in the states' purview. Connecticut should revisit this policy this year and reduce retail electric rates.

#### **b. Cleaner**

Beyond its need to reduce retail electric rates, Connecticut also has aggressive statutorily mandated environmental goals it has to meet. In particular, there are two statutorily mandated programs that impact energy policy.

The first is Connecticut's Renewable Portfolio Standard. This calls for 20% of Connecticut's energy supply to come from Class I renewable resources (biomass, solar, wind, fuel cell etc.) by 2020. Additionally, it calls for an additional 3% of the supply to come from Class I or Class II renewable resources (trash-to-energy etc.) and an additional 4% of the supply to come from Class III renewable resources (combined heat & power etc.) by 2020 too. Last year's proposal to run a competitive procurement process would not have changed this. In fact, it might have added more renewable resources to Connecticut's fleet. Dominion is one of Connecticut's biggest investors in Class I renewable resources. We are investing in them across the country and are always interested in new opportunities. If the legislature revisits last year's proposal it will provide a competitive platform to potentially add more renewable power, but only if it is in the ratepayers' best interest.



The second statutorily mandated program that impacts energy policy is Connecticut's Global Warming Solutions Act. This mandates that Connecticut reduce its greenhouse gas emissions 80% below its 2001 emissions by 2050. In order to achieve this, it is not an either/or scenario. Instead, it is an every electron of carbon-free power and then some.

Other New England states, including Massachusetts and Rhode Island have similar legislatively mandated greenhouse gas reduction goals. In order to achieve these goals, Connecticut and its neighboring states are going to be competing to get the lowest cost carbon free resources to meet their policy goals. Last year's legislation was designed to reduce retail electric rates. However, the other priority was harnessing environmental attributes.

Again, retail rates and environmental policy are clearly within the states' purview. Connecticut would be smart to pursue this again.

### **c. More Reliable**

Nuclear power operates over 90% of the time – far and away, it is the most reliable, stable, low-cost source of electricity. Moreover, its fuel source is onsite for 18-24 months, depending on refueling cycles, and is not reliant on pipelines, tankers or barges. Quite simply it is a critical electricity source whose reliability is unmatched.

Unfortunately, 75% of the nuclear power plants in New England and New York have recently announced they are retiring prematurely due to the suppressed wholesale energy market. A plant in Vermont has closed, and others in Massachusetts and New York are scheduled to shut down over the next few years. New York is trying to resurrect three up-state nuclear plants through a subsidy program. That is currently being litigated and its fate is uncertain. That leaves Connecticut's Millstone and New Hampshire's Seabrook power stations as the only two nuclear power stations in New England or New York that have not announced a premature retirement.

As Dr. Tierney pointed out in her report, natural gas is the fuel source that will replace nuclear power in New England.<sup>6</sup> Connecticut and New England are already over reliant on natural gas for electricity and succumb to its pricing volatility during peak demand periods in winter months. Moreover, according to the independent grid operator, the grid needs nuclear power and oil or else the grid could succumb to controlled power outages.<sup>7</sup> Like any portfolio, energy needs diversity and balance. Nuclear power helps provides that. Allowing nuclear to compete in Connecticut's competitive procurement is good policy. It promotes fuel diversity and reliability. Critical attributes for consumers that are currently underappreciated or taken for granted.

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<sup>6</sup> See Exhibit A.

<sup>7</sup> ISO-New England: Northeast needs nukes, oil-fired plants for reliability, January 30, 2017. <https://www.snl.com/InteractiveX/article.aspx?CDID=A-39245265-12076&KPLT=4>



#### **IV. Conclusion**

Last year's legislation was simply enabling. It would have allowed DEEP, the Attorney General's Office and the Office of the Consumer Counsel, to solicit bids from various resources. The language was not prescriptive that they had to choose any of the resources. Moreover, it stated multiple times that a resource could not be selected unless those state officials deemed it was in the ratepayers' best interest. In others words, it was legislation that set up a competitive process to guarantee that retail electric rates would be reduced and depending on the winning resources, the state would also enjoy their environmental and/or economic attributes. Dominion fully supports this concept and encourages the Energy & Technology Committee, and legislature as a whole, to do so too. It is a competitive process to reduce retail electric prices and meet the state's carbon reduction goals. That is in Connecticut's purview. We want the opportunity to compete to be one of the resources helping Connecticut meet its energy and environmental policy goals.