

NEW HAMPSHIRE



ENERGY EFFICIENCY AND SUSTAINABLE ENERGY BOARD

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21 South Fruit Street, Suite 10
Concord, N.H. 03301-2429

July 21, 2014

Meredith Hatfield, Director
Office of Energy and Planning
Johnson Hall
107 Pleasant Street
Concord, NH 03301

Dear Ms. Hatfield,

The Energy Efficiency and Sustainable Energy (EESE) Board appreciates the opportunity to comment on the New Hampshire State Energy Strategy draft report dated May 1, 2014. The EESE Board is tasked with promoting and coordinating energy efficiency, demand response, and sustainable energy programs in the state. The EESE Board applauds the development of a State Energy Strategy and notes the need for strong leadership from both the Executive Branch and the General Court in implementing the Strategy. **A strong, stable energy policy in New Hampshire will help keep our energy dollars in the state where they can grow the local economy, lessen energy demand through efficiency, ensure a diverse and stable energy supply to residents and businesses, and reduce negative health and environmental impacts.**

On November 30, 2012, the EESE Board, with unanimous support of Board members, submitted a Final Report to the General Court on the 2011 *New Hampshire Independent Energy Study*¹. This report stated "The overarching finding of the study and review is that energy efficiency and renewable energy technologies provide significant economic and environmental benefits to residents, business owners and investors in New Hampshire and appropriate policies need to be developed." **Toward this end the EESE Board provided three recommendations that "form an umbrella of key priorities under which all New Hampshire energy programs and policies could be developed and aligned."** They are:

1. **Clearly articulate a comprehensive energy policy;**

¹ *Independent Study of Energy Policy Issues*, Vermont Energy Investment Corp., September 30, 2011, required by Senate Bill 323 (2010 session)

2. **Develop and establish an Energy Efficiency Resource Standard; and**
3. **Maintain and strengthen the Renewable Portfolio Standard.**

The Board's recommendations in the Final Report continue to reflect the top energy policy priorities for New Hampshire. **An actionable strategy to achieve them should be clearly and unequivocally articulated in the final State Energy Strategy.**

Indeed, the 2013 analysis and report, *Energy Efficiency in New Hampshire: Realizing Our Potential*² found that increased investment in energy efficiency in New Hampshire could create over 2300 jobs and add \$160 million per year to the NH Gross Domestic Product.

Many stakeholder processes, including the 2009 *NH Climate Action Plan*³ and the State Energy Strategy public meetings, have highlighted the pressing need to prioritize energy efficiency and renewable energy for both economic and environmental reasons. **The final State Energy Strategy should clearly articulate the need for prompt action and propose measurable and comprehensive actions to promote efficiency and renewable energy, to track progress, and to engage all levels of state government and both private and non-profit sectors. The State Energy Strategy should capture recommendations from past work, and should also draw from "best in class" programs regionally and nationally.**

Actions that utilize energy efficiency as a primary energy resource, foster the deployment of local, renewable resources, and reduce fossil fuel use in the state will retain more of New Hampshire's energy dollars in the state, support local economic development, and encourage the development of private market investment in energy in New Hampshire. **The Strategy should also recommend the State coordinate the use of existing financial resources for creative financing mechanisms to deploy renewable energy and energy efficiency projects. We strongly recommend the final Strategy contain a vision statement and recommended actions that reflect these priorities.**

The EESE Board offers the following comments specific to the five vision elements:

1. Energy Efficiency

The EESE Board remains concerned that New Hampshire is falling behind our New England neighbors in setting efficiency targets, and losing the corresponding economic benefits. As noted, an Energy Efficiency Resource Standard (EERS) was previously identified by the EESE Board⁴ as a top priority for New Hampshire. All other recommendations relative to energy use in the state should both complement and reinforce an EERS. **The Strategy should recommend**

² *Increasing Energy Efficiency in New Hampshire: Realizing Our Potential*, Vermont Energy Investment Corp. GDS Associates, Inc., Jeffrey H. Taylor & Assoc., Inc. November 15, 2013

³ *The New Hampshire Climate Action Plan, A Plan for New Hampshire's Energy, Environmental and Economic Development*, NH Department of Environmental Services, March 2009

⁴ *Final Report on the New Hampshire Independent Energy Study*, EESE Board, November 16, 2012

that New Hampshire adopt an EERS that clearly articulates a policy supporting efficiency as a first-order, lowest cost resource and establish competitive savings targets. The recommended EERS should also call for specific savings targets for electric and gas utilities, enforceable building codes, market transformation opportunities, and public and private financing mechanism that allow both utility and non-regulated energy savings programs to flourish. **The EESE Board further recommends the Strategy call for near-term legislative and/or regulatory action in establishing an EERS for New Hampshire.**

The Strategy should also recognize the unique opportunity State government has to “lead by example” and capitalize upon this by recommending the state adopt a policy to maximize investment in cost effective efficiency measures in state buildings and operations.

2. Grid Modernization

The current draft Strategy calls for the PUC to open a docket on grid modernization. A non-adjudicatory docket would be a solid step toward a more modern, reliable and efficient grid, with empowered consumers and improved outage management. **The Strategy should recommend swift, but sensible action to modernize the grid to stay competitive with the infrastructure and technology modernizations that neighboring states are already prioritizing.**

The Strategy should also address related efforts needed in the form of a broad public information campaign about “smart grid” technology to provide clarity on what is meant by terms such as “smart grid” or “smart meter,” and about the capabilities, impacts, and associated costs. Uncertainty and confusion may otherwise cause resistance that could undermine efforts to modernize the grid.

3. Renewable Power Generation

New Hampshire’s Renewable Portfolio Standard (RPS) establishes a goal of 24.8% renewable electric and thermal energy by 2025. The state has missed significant time and opportunity to robustly deploy new renewable energy generation, due in large part to frequent changes to the program that create uncertainty in the marketplace. Alternative compliance payments (ACP) represent the maximum value that the state places on a particular renewable energy source. **The Strategy should recommend the ACP value be based on regional market values in order to allow NH to participate and compete in the robust renewable energy markets in neighboring states. Additionally, the Strategy should recommend that the Renewable Energy Fund be used solely for projects and programs that support development of the renewable energy market in New Hampshire.** Significant potential exists to utilize these funds to leverage private investment in renewable energy in the state and the Strategy should reflect this potential.⁵

⁵ Numerous economic reports show the value of renewable energy and energy efficiency to the state and locality, including the MA Clean Industry Reports, the Vermont Clean Energy 2014 Industry Report, and the Gittell et al 2007 economic analysis of a NH RPS, to name a few.

Distributed resources represent an important component of a well-balanced power generation portfolio. The RPS resource classes can support (or maintain) the development of some renewable distributed resources through Renewable Energy Certificate revenues. **The Strategy should recommend the State modify the net metering rate structure to provide retail rate compensation for an expanded set of customer generators⁶ and pursue policies that enable other creative non-public financing mechanisms, support adequate technical assistance programs, and streamline the RSA 374-G process to reduce administrative burden and enable projects to be completed sooner in order to reach the full technical and economic potentials of all distributed resources, including energy storage resources and combined heat and power. Additionally, the Strategy should recommend the State support efforts to encourage and enable widespread use of the recently revised Commercial Property Assessed Clean Energy (C-PACE) funding mechanism.**

4. Fuel Choice and Availability

The draft Strategy suggests several viable approaches that may expand fuel choice and availability for heating and industrial use. However, **the Strategy should also address fuel choices relative to the transportation sector, discuss the potential for bio-gas in the state, and capture “best-in-class” strategies.**

Currently, about 250,000 New Hampshire homes heat with oil. **Converting about ten percent of these homes to biomass fuels for heating purposes is technically achievable with sustainably harvested biomass yields, would save millions in energy costs each year, and would help transform the market for viable and affordable biomass heating equipment and fuel supplies.** Use of this indigenous fuel will also strengthen the New Hampshire economy by keeping our fuel dollars in the State. **The Strategy should recommend appropriate financial incentives, financing, and industry guidance to make this transition.**

The Strategy recommends establishing targets for higher utilization rates for natural gas among on-main customers, a plan many EESE Board members support. **The Strategy should also recommend policy changes that facilitate the expansion of natural gas use through existing main lines and trucked CNG options. Additionally, the Strategy should recommend that ratepayer-expensed regional tariffs to create green-field pipeline projects, such as is under consideration by NESCOE, be thoroughly analyzed and publicly vetted.**

One fuel source that is not discussed in the strategy is biodiesel, which can be used either in the transportation sector or used in existing oil heat systems (bioheat). New Hampshire has one large commercial scale biodiesel producer and several smaller entities that produce biodiesel from waste grease collected in the state. While the potential market size is limited by waste grease availability, it is still an important re-use of a waste product and provides a low emission

⁶ Current net metering rules have two different levels of reimbursement value--one for systems under 101 kW and the other for those over 100kW and up to and including 1 MW.

energy resource for the state. **The Strategy should recommend actions that help develop the market for this fuel, including that the State utilize a certain percentage of waste grease-derived biodiesel in heating oil used in state buildings and that the state seek to lower the sulfur content of liquid fuels in the state consistent with action taken in other New England states⁷.**

Bio-gas⁸ is another fuel source that is absent from the Strategy. Again, availability is limited by potential sources of bio-gas in the state (e.g. landfills, waste treatment facilities), but failure to capture the gas as a fuel source represents a missed opportunity for NH. **The Strategy could recommend analysis of this potential energy source to determine its economic viability.**

The draft Strategy's Figure 5-12 lists combined heat and power (CHP) as an applicable technology, but fails to **recommend a means to boost development of CHP** in the state. It should do so. **One potential tactic is development of appropriate CHP-supportive rate design (e.g. stand-by charges) and a technical assistance provision targeted to sites that have large, consistent thermal loads.**

The Strategy should recommend New Hampshire consider adoption of a Low Carbon Fuel Standard (LCFS) for motor vehicle fuels that encompasses the Northeast- mid-Atlantic region. Such a tactic could create economic opportunities in the region, reduce exported energy dollars, and reduce emissions of harmful air pollution.

5. Transportation Options

The transportation sector accounts for 35 percent of New Hampshire's energy consumption,⁹ and has an enormous economic and environmental impact in the state. Based on the Navigant analysis, per capita energy costs for transportation energy exceed either thermal or electric per capita costs annually for New Hampshire's buildings. **It is critical that the Strategy include actionable recommendations that will encourage the use of more efficient travel modes for movement of goods and people and spur development and adoption of more efficient and cleaner on-road vehicles.**

Noticeably absent from the Strategy is any mention of rail as a means to increase the efficiency of movement of freight and people. Continued reliance solely on trucks for movement of freight within and through the state adds costly wear and tear on our roadways, wastes energy and contributes to air pollution. Utilizing rail for freight movement lessens the energy needed to move those goods, reducing both costs and environmental impacts. With redevelopment of rail networks to support freight comes the opportunity to utilize those same rail lines for passenger rail that could support both our commuting population and tourist travel to the state. **The**

⁷ Other New England states have adopted requirements that lower the sulfur content of fuel oil to 15 - 500 ppm.

⁸ Biogas is methane produced by the process of anaerobic digestion of organic material by anaerobes.

⁹ <http://www.eia.gov/state/?sid=NH>

Strategy should include rail as a viable approach to reduce energy use in the transportation sector.

The Strategy appropriately recognizes the significant potential for expanded public transportation options to reduce energy use in the transportation sector. However, the Strategy does not provide any concrete recommendations to ensure adequate funding to develop and support public transportation or to ensure state and regional transportation planning take this need into account. Continued reliance on the road toll (more commonly referred to as the gas tax) is a failure to plan. Vehicles will become increasingly efficient in response to federal policy and the cost of maintaining our existing roadways and bridges and building new infrastructure will continue to escalate. **The Strategy should recommend that the State work collaboratively with other states, particularly the Northeast states who participate in the Transportation Climate Initiative¹⁰, to evaluate other mechanisms to fund a comprehensive transportation system, one that goes beyond traditional highway infrastructure to include public transportation options, freight movement options, and active transportation modes such as biking and walking. The Strategy should further recommend that as State funds becomes available they are utilized to their fullest extent to provide matching funds for, and thus secure, available federal funding to support public transportation.**

We have previously noted the unique position of state government to demonstrate viable technologies and best practices, thereby leading others to adopt similar strategies. This ability to lead by example applies to fleet operations and adoption of advanced vehicle technologies as well. **The Strategy should recommend the State adopt policies that bring highly efficient and clean technology vehicles into the State fleet. The Strategy should recommend that the State provide electric vehicle charging infrastructure at State offices to support adoption of these cleaner vehicles by the largest workforce in the state, state employees. And the Strategy should recommend the State explore other policy options, such as tax credits, that will encourage the private sector to provide the infrastructure necessary to support the next generation of clean vehicles across the state, thus connecting New Hampshire to our neighboring states who have already adopted such policies, and enabling their citizens to travel here for both work and pleasure.**

Finally, the EESE Board applauds the recommendation in the draft Strategy regarding adoption of the **California Low Emission Vehicle program and the Zero Emission Vehicle program** in New Hampshire.

Conclusion

The State Energy Strategy needs to move us forward with clear and specific recommendations that address the State's critical energy issues. The current draft Strategy fails to successfully

¹⁰ TCI includes all New England states, New York, New Jersey, Pennsylvania, Maryland, Delaware, and the District of Columbia.

leverage prior analysis, previous studies and the consultant's extensive knowledge of best practices and successful paradigms from other jurisdictions. **The Strategy should clearly define a course of action, starting in 2015, which maximizes the State's energy potential and ensures our competitiveness in the long run.**

The EESE Board strongly supports a final ten-year energy strategy that will result in measurable goals and clear parameters against which progress toward those goals can be measured, The EESE Board is prepared to assist in establishing these goals, starting now. Centering those goals, and the accompanying actionable strategies, around metrics that will minimize waste, foster the deployment of local, renewable resources, and reduce fossil fuel use in the state will retain more of New Hampshire's energy dollars in the state, support local economic development, and encourage the development of private market investment in energy in New Hampshire. **We know that the State needs to move in this direction. Now is the time to act decisively, with a clear and actionable State Energy Strategy and strong leadership from the Governor's Office and the State Legislature.**

Sincerely,



Katherine W. Peters

Acting Chair

Energy Efficiency and Sustainable Energy Board