

STATE OF NEW HAMPSHIRE



**Energy Efficiency and Sustainable Energy Board
RSA 125-O:5-a**

Seventh Annual Report

Prepared for:
Governor Margaret Wood Hassan
President of the NH Senate
Speaker of the NH House
Chair of the Energy and Natural Resources Committee
Chair of the House Science, Technology and Energy Committee
Public Utilities Commission

December 31, 2014

I. Introduction

This annual report provides an update on the activities of the Energy Efficiency and Sustainable Energy Board and its recommendations for action, pursuant to RSA 125-O:5-a IV.

II. Background

The Energy Efficiency and Sustainable Energy Board (“EESE Board”) was created in 2008, by RSA 125-O:5-a. The Board’s central charge is “to promote and coordinate energy efficiency, demand response, and sustainable energy programs in the state.” A key purpose for establishing the EESE Board was an increasing awareness that energy efficiency is the least expensive and cleanest energy resource, and that New Hampshire must do more to promote energy efficiency and sustainable energy resources as a means to bolster the state’s economy and spur business innovation, improve energy security, reduce customer costs, and protect the environment. To this end, the EESE Board is directed to develop a plan to achieve the state’s energy efficiency potential as well as economic and environmental sustainability of the state’s energy system, including development of clean energy resources, and to ensure that the state is providing leadership on energy efficiency and sustainable energy matters.

The Chair of the Public Utilities Commission (PUC) convened the first organizational meeting of the EESE Board on October 1, 2008, and the Board has met roughly nine to twelve times a year since that time. The Board is administratively attached to the PUC, which provides administrative support.¹ The PUC hosts a comprehensive webpage for the EESE Board and other interested parties where all meeting materials and background information can be found: www.puc.nh.gov/EESE.htm.

¹ Administrative Support and Contact for the EESE Board is the PUC: (603) 271-2431, puc@puc.nh.gov.

III. Statutory Duties

The EESE Board's duties are broad. They include, but are not limited to:

- Reviewing available energy efficiency, conservation, demand response, and sustainable energy programs and incentives and compiling a report of those resources in New Hampshire;
- Developing a plan to achieve the state's energy efficiency potential for all fuels, including setting goals and targets for energy efficiency that are meaningful and achievable;
- Developing a plan for economic and environmental sustainability of the state's energy system including the development of high efficiency clean energy resources that are either renewable or have low net greenhouse gas emissions;
- Exploring opportunities to coordinate programs targeted at saving more than one fuel resource, including conversion to renewable resources and coordination between natural gas and other programs which seek to reduce the use of nonrenewable fuels;
- Developing tools to enhance outreach and education programs to increase knowledge about energy efficiency and sustainable energy among New Hampshire residents and businesses;
- Expanding upon the state government's efficiency programs to ensure that the state is providing leadership on energy efficiency and sustainable energy including reduction of its energy use and fuel costs;
- Encouraging municipalities and counties to increase investments in energy efficiency and sustainable energy through financing tools, and to create local energy committees;
- Working with community action agencies and the Office of Energy and Planning to explore ways to ensure that all customers participating in programs for low-income customers and the Low Income Home Energy Assistance Program (LIHEAP) have access to energy efficiency improvements, and where appropriate, renewable energy resources, in order to reduce their energy bills; and
- Investigating potential sources of funding for energy efficiency and sustainable energy development and delivery mechanisms for such programs, coordinating efforts between funding sources to reduce duplication and enhance collaboration, and reviewing investment strategies to increase access to energy efficiency and renewable energy resources.

IV. Members and Public Participation

The members of the EESE Board, designated by RSA 125-O:5-a, II, include representatives of business and non-profit organizations and associations, legislators, state agency heads, consumer representatives, as well as several non-voting members representing electric and natural gas utilities, banking, and businesses in relevant energy efficiency and sustainable energy industries. The members represent a wide range of interests that help inform the Board's work. Members as of November 2014 are:

Acting Chair:

Kate Peters, PSNH — utility appointment by PUC Chair, RSA 125-O:5-a, III(a) (non-voting)

Voting Members:

Sen. Jeb Bradley — Senate President appointment, RSA 125-O:5-a, II (k)

Susan Chamberlin — Consumer Advocate, RSA 125-O:5-a, II (c)

Karen Cramton — OEP designee, RSA 125-O:5-a, II (b)

Jeffrey Cyr — Fire Marshall designee, RSA 125-O:5-a, II (n)

Kate Epsen --- NH Sustainable Energy Association — not-for-profit appointment by PUC Chair, RSA 125-O:5-a, II (l)

Mike Fitzgerald — DES designee, RSA 125-O:5-a, II (d)

Ben Frost — Housing Finance Authority designee, RSA 125-O:5-a, II (o)

Jeff Kelley — NH Homebuilders and Remodelers Association designee, RSA 125-O:5-a, II (i)

Rep. Robert Introne — House Speaker appointment, RSA 125-O:5-a, II (j)

Dennis Labbe — NH Legal Assistance designee, RSA 125-O:5-a, II (h)

Brian Ramsey — Business and Industry Association designee, RSA 125-O:5-a, II (f)

Karen Rantamaki, State Energy Manager — DAS designee, RSA 125-O:5-a, II (m)

Laura Richardson, The Jordan Institute — not-for-profit appointment by PUC Chair, RSA 125-O:5-a, II (l)

Jack Ruderman — PUC Chair designee, RSA 125-O:5-a, II (a)

Deborah Schachter, NH Charitable Foundation — not-for-profit appointment by PUC Chair, RSA 125-O:5-a, II, (l)

Theresa Swanick — NH Municipal Association designee, RSA 125-O:5-a, II (g)

Rep. Chuck Townsend — House Speaker appointment, RSA 125-O:5-a, II (j)

Carmen Lorentz — DRED designee, RSA 125-O:5-a, II (e)

Non-Voting Members:

Michael Bruss, Bruss Construction, Inc. — energy services co. appointment by PUC Chair, RSA 125-O:5-a, III (b)

Michael Behrmann, Revolution Energy, LLC— renewable energy business appointment by PUC Chair, RSA 125-O:5-a, III (c)

Cindy Carroll, Unutil/Northern — utility appointment by PUC Chair, RSA 125-O:5-a, III (a)

Art Letendre, Merrimack County Savings Bank — investment community appointment by PUC Chair, RSA 125-O:5-a, III (d)

Debra Hale, Liberty Utilities — utility appointment by PUC Chair, RSA 125-O:5-a, III (a)

Carol Woods, NH Electric Coop—utility appointment by PUC Chair, RSA 125-O:5-a, III (a)

The Board has since its inception appreciated and encouraged attendance and participation of the public at its meetings. Business, municipal and nonprofit leaders and other stakeholders regularly attend the EESE Board's monthly meetings and are encouraged to bring relevant energy experience to the Board's discussions. In all, 130 people are on the Board's email distribution list, not including Board members. The Board recognizes that energy consumers, business leaders, municipal officials, energy efficiency and sustainable energy professionals, and other concerned members of the public and private sectors are all crucial to achieving our state's energy goals.

V. Description of 2014 Activities

The EESE Board met eleven times in 2014: in January, February, March, April, May, June, July, September, October, and November. Meeting agendas, minutes, presentations, and other materials from all of the EESE Board's meetings can be found on the PUC's EESE Board webpage: www.puc.nh.gov/EESE.htm.

In addition, the Board has utilized a working group structure to meet its broad statutory goals, enabling work between Board meetings and opportunities for participation from both EESE Board members and non-members. Working groups in 2014 focused on review of the State Energy Strategy as well as Outreach and Public Education (O&E). Major activities of the Board in early 2014 focused on follow-up regarding the Board's 2013 work on an Energy Efficiency Resources Standard (EERS) as well as a series of highly informative guest speakers.

Later in the year the Board also spent significant time reviewing drafts and providing feedback to the State Energy Council regarding the State Energy Strategy.

Energy Efficiency Resource Standard

In late December 2013 the EESE Board sent a letter to the Public Utilities Commission requesting that the Commission initiate an informal, non-adjudicative stakeholder process regarding the potential for an Energy Efficiency Resource Standard (EERS) in New Hampshire. On February 7, 2014 the Commission responded with a letter indicating that two staff members, Les Stachow and Jack Ruderman would begin a stakeholder interview process and development of a potential EERS proposal. Over the next months, Board members and stakeholders held extensive individual meetings with Mr. Stachow, providing feedback and information on a variety of topics and questions related to EERS and how such a policy might be structured in New Hampshire. Mr. Stachow and the Commission then undertook the task of processing the varied input and developing a straw man proposal for a NH EERS. On March 13, 2015, the Commission opened an investigation to consider an EERS for New Hampshire. Related materials to that investigation including Staff Straw Proposal can be found on the PUC's webpage: <http://www.puc.nh.gov/Regulatory/Docketbk/2015/15-072.html>. On May 8, 2015, the Commission opened a docket to begin the process of establishing a framework for an Energy Efficiency Resource Standard: <http://puc.state.nh.us/Regulatory/Docketbk/2015/15-137.html>.

Presentations

The EESE Board frequently solicits presentations from projects and programs working on issues of interest to the Board. In 2014 the Board heard updates from several existing New Hampshire programs as well as presentations from outside experts on energy policy. The EESE Board brought in several industry experts in 2014 for presentations on how efficiency impacts

the regional energy market, how distributed energy resources may affect utility business models, new technology for energy storage and the benefits and challenges of smart grid deployment.

- January: The January meeting included a presentation on the Model Neighborhood Project from Maura Adams and Rob Riley of the Northern Forest Center. Model Neighborhood started as a pilot program in Berlin, NH working to install a critical mass of pellet boilers in both residential and commercial buildings. A total of 40 homes, 2 affordable housing units, and the community arts center installed pellet boilers under this program, all equipped with minimum 3 ton pellet storage. The program is now using lessons learned in NH to expand in New York and Maine as well.
- February: Jim O'Reilly and Josh Craft gave an overview of efficiency policy in the northeast and information on how NH is lagging behind our neighboring states. They also presented some of the economic arguments in favor of stronger efficiency policy. Eric Wilkinson and Gregg Wade of ISO New England then spoke to the Board about ISO's energy efficiency forecast and how the increase in efficiency makes a significant impact on the need (or lack thereof) for new generation/transmission development.
- March: Richard Sedano of the Regulatory Assistance Project gave a presentation of the growing success of distributed generation resources, the challenges that these resources present to traditional utility and regulatory models and a range of possible policy approaches. The March meeting also included a presentation from Adam Rauwerdink of SustainX, discussing the Seabrook NH company's approach to commercial scale energy storage.
- April: In April, the NH Core Utility programs presented an update on the success of the 2013 energy efficiency programs as well as a look ahead at planning for the 2015/16 program filings. Allison Mackey of Ernst and Young attended the Board meeting in April

to present on the deployment of Smart Grid resources. The technology has a great deal of potential and Ernst & Young is seeing different levels of deployment around the country.

- May: Chris Miller and Mike McQueeney provided a review of the Greener Homes program, in which NH Housing Finance Authority and contractor TRC worked to upgrade affordable housing units around the state. A key feature of the program included collection of post-construction energy usage, which showed a 36% savings compared to the projected 31% savings.
- June: State Energy Strategy, see next section, p.9
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- August: There was no meeting of EESE Board in August.
- September: State Energy Strategy, see next section, p.9
- October: The October meeting included a presentation entitled Launch and Lift-Off of NH C-PACE by Laura Richardson, Executive Director of The Jordan Institute. Property Assessed Clean Energy (C-PACE) financing for Commercial buildings is an innovative way to finance energy-efficiency and renewable-energy projects; making the projects cash-flow positive from day one. Program goals, types of projects, ideal candidates, building characteristics and project qualifications were all included in the discussion of this exciting new program. Also in October, PSNH, Liberty Utilities and OPower presented an overview and program results for the Home Energy Report pilot programs. In total, 25,000 households participated in each pilot program (PSNH Electric and Liberty Utilities – Gas). PSNH participants realized total savings of over 700,000 kWh since the mid-February 2014 implementation. Participant opt-out rate trended below OPower average.

- November: The November meeting featured a presentation on Energy Savings in Mixed Use Villages - The Connection Between Land Use and Energy by Nathan Miller, AICP, Executive Director at the Upper Valley Lake Sunapee Regional Planning Commission, Lebanon, NH. The presentation included an overview of the role the regional planning commission plays in assisting communities with detailed description of a study that was conducted for Lebanon, New Hampshire to evaluate the relationship between local land-use planning, transportation planning and regional energy consumption. The regional impact of the transportation mode shift, in vehicles mile traveled (VMT), is projected to result in 3,640,000 VMT avoided/year as a result of future employees living in the city rather than living further away in other parts of the region. This results in a total of 4.4 million VMT avoided/year which will have a significant impact on the region's air quality and energy use.
- December: There was no meeting of the EESE Board in December.

Outreach and Education

A workgroup of Board members and stakeholders met during the early part of 2014 to develop a plan of focus for the Outreach and Education (O&E) Subcommittee. Scott Albert of GDS Associates helped to lead the group through a logic model process to identify next steps for the subcommittee and Board. The Board agreed with the approach proposed in the logic model, but was not able to commit a lot of additional time and resources to next steps for the O&E Subcommittee this year.

State Energy Strategy

The Board spent the majority of its time during the second half of the year on the State Energy Strategy (Strategy). The Board formed a subcommittee, led by Becky Ohler of DES and

Kate Epsen of NHSEA. The subcommittee met throughout the process to review drafts of the Strategy, discuss potential Board response and ultimately develop formal comments for submission to the Office of Energy and Planning (OEP). Meredith Hatfield of OEP gave a presentation on the Draft Strategy at the June Meeting. The subcommittee met both before and after to discuss Board comments. The main focus of the July board meeting was a thorough discussion and final edits on the Board's comment letter. The final letter was approved and submitted to OEP by July 22, 2014. The September Board meeting took place directly before OEP presented the final State Energy Strategy to the State Energy Council and EESE Board members attended that presentation. Next steps for the Board include developing an approach for follow-up on the State Energy Strategy.

Legislative Monitoring and Letter on Renewable Energy Fund (REF)

The Legislative Subcommittee did not hold regular meetings during 2014. However, Board member Rep. Townsend, and other members following legislation gave the Board regular updates on legislation pertaining to energy issues. At the July meeting the Board heard from the PUC that compliance payments to the Renewable Energy Fund were approximately \$18 Million. However, the PUC only had legislative approval to spend \$7.9 Million. The Board voted to send a letter to the Joint Legislative Fiscal Committee, in advance of an official PUC request, indicating that the funds should be used fully for their intended purpose to advance renewable energy in the state.

VI. Conclusion

The EESE Board has endeavored to be a forum for collaboration and information sharing and to assist the state in the development of a comprehensive approach to energy cost savings, clean energy jobs, and a stronger and more secure energy future for New Hampshire. The Board

appreciates the engagement and immense time contribution of so many interested parties, including its volunteer members, non-voting participants and many other public and private stakeholders. This contribution by so many participants in support of dialogue, inquiry, analysis and sharing of ideas has created a unique opportunity for the state to draw on a wide variety of experience and knowledge as it navigates the next steps to move its energy efficiency and sustainable energy agenda forward. The EESE Board looks forward to building on the knowledge gained from its previous work and helping the state to meet the next set of challenges and opportunities in energy efficiency and sustainable energy.

Respectfully Submitted,

Kate Peters, Acting Chair