

**Energy Efficiency and Sustainable Energy (“EESE”) Board
Independent Energy Study (“SB 323”) DRAFT Final Report
September 19, 2012**

Introduction

In 2010, the New Hampshire Legislature passed Senate Bill 323 (“SB323”), which required the Public Utilities Commission (“PUC”), in consultation with the Energy Efficiency and Sustainable Energy (“EESE”) Board, to contract for a comprehensive, independent energy policy study for the State of New Hampshire (“Independent Study”). This study was completed by Vermont Energy Investment Corporation (“VEIC”) and submitted to the Legislature in November 2011, as required under SB323. Additionally, the bill charged the EESE Board with the task of providing its recommendations to the legislature after completing a review of the independent study. The EESE Board has completed an extensive review process of the Independent Study. This review has benefited from the deep knowledge and expertise of EESE Board members and other stakeholders, and has taken into account the continuing changes in the energy landscape over the past year. This report provides the EESE Board recommendations and concludes the energy policy review process begun by SB232 in 2010. The challenge of implementing the resulting recommendations is now before us. As this report notes, some of the key challenges fall to the legislature for deliberation and action, but many also need to be addressed, and in many cases are being addressed, in ongoing regulatory, program administration and stakeholder processes.

In addressing energy policy for the state of New Hampshire, it is important to recognize the critical role energy plays in the state’s economy. In 2008, New Hampshire citizens, businesses, and industries spent over \$6 billion on energy, two-thirds of which left the state entirely to pay for imported fuels. This outflow of dollars is a significant drain on the state economy equal to nearly 7% of annual Gross State Product (GSP). As stated in the Independent Study:

“Energy is the lifeblood of the economy, and all citizens in New Hampshire depend on energy to carry out their work and conduct their lives. As a northern New England state with cold winters, warm summers, and a rural and semi-rural landscape in most locations, the state’s residents and visitors need space heat in the winter, cooling in the summer, and electricity and transportation fuels year round. As such, 10 to 50% of the income of many New Hampshire households goes to paying energy bills, and energy is a significant expense for businesses, industries, and government as well.” (Executive Summary Page 1)

It is also clear, both from the Independent Study and from a wide variety of other sources, that residents and business owners could benefit significantly from increased investment in energy efficiency and sustainable energy measures that reduce or stabilize future energy bills, increase reliance on local energy resources, and stimulate the state economy. Some of these investments,

particularly those in energy efficiency, would be immediately cost-effective¹ but are not able to be undertaken by consumers due to limitations in information, know-how or funds, all of which create barriers to effective markets for energy efficiency products and services. Other investments, including many renewable energy technologies, may not be immediately cost-effective relative to imported fuels, but can offer valuable diversity and environmental benefits and would protect against future price increases for imported fuels while supporting local businesses. Prudent increases in energy efficiency and local production of energy resources would contribute to sustainable economic development and job creation and would enhance New Hampshire's future prosperity. The long-term health of the New Hampshire environment is also directly influenced by energy production and consumption. Energy is the primary source of air emissions in the state and a significant factor in land use, water use and waste production, as well as a key driver of global climate change. Energy efficiency and renewable energy technologies provide significant environmental benefits to the state.

New Hampshire has been supportive of energy efficiency and renewable energy in a variety of ways, including laws, regulations and programs that seek to encourage and promote energy efficiency and renewable energy initiatives. Many of those initiatives have been very successful and cost-effective. However, the state has pursued these efforts in a manner that has tended to deal with one single fuel, such as electricity, or one narrow issue, such as the siting of wind turbines, at a time. Energy policy is a complex and multi-faceted challenge involving a variety of markets and market participants, a wide cross-section of stakeholders, and a very broad range of issues. Energy policy is also a long-term challenge. Clarity and consistency in market rules and in the design and implementation of programs over long periods of time is essential in order to achieve maximum benefits to the state and its consumers.

In the view of the EESE Board, it is essential for the long term economic vitality and prosperity of the state that a comprehensive and consistent overarching energy policy be articulated and used as the framework to guide future decision-making by the state and other government entities and by the broader universe of producers, consumers, suppliers, distributors and service providers that participate in the state's energy markets. Based on its detailed review and analysis of the Independent Energy Study, the EESE Board provides a number of specific recommendations for that overall energy policy and for its implementation in the coming decades. While many, if not most, of the EESE Board recommendations can be implemented at least partially

¹ According to a study of energy efficiency opportunities in New Hampshire, if all households in the state were improved to the level of energy efficiency that is cost-effective (as defined for regulated energy efficiency programs), residents would save \$309 million per year and savings in commercial and industrial buildings would be another \$220 million per year. Those savings would circulate in the local economy rather than flow elsewhere. While the investment to achieve such savings is estimated at nearly \$2 billion, the savings would offset the investment in less than four years.

within the current statutory and regulatory framework, the establishment of a coherent and consistent overarching energy should be pursued as it would have very significant benefits for the state economy as a whole and individual energy consumers.

EESE Board Review of the Independent Energy Study

The Independent Energy Study was conducted by the Vermont Energy Investment Corporation (“VEIC”) consulting team over a period of nearly a year, with regular direct communication between the VEIC team and the Study Coordination Team that consisted of seven members of the EESE Board and representatives of the NHPUC. The final report submitted by VEIC to the PUC and to the Legislature pursuant to Senate Bill 323 offered a comprehensive and robust review of energy policy options and opportunities for the state of New Hampshire. The Study contained fourteen separate chapters, and the total number of recommendations in those chapters exceeded 300. Some of the recommendations were general overarching policy recommendations, but many were very detailed and specific, dealing with individual technologies, fuels or programs. The Study was presented in written form as a complete report. A fifteen page Executive Summary was also provided, and two detailed presentations on the report were made by the authors, one to a joint meeting of the Senate Energy and Environment and the House Science and Technology committees, and a second one to the broader public at the annual energy conference of the Business and Industry Association. In addition to participation on the Study Coordination Team, members of the EESE Board reviewed the entire report and Executive Summary, and attended the presentation sessions.

In its initial review of the Independent Study, the EESE Board determined that a considerable effort would be required to sort through the full universe of study recommendations in order to assess the relative importance of each recommendation, to evaluate the required timeline and potential costs of implementation, and to determine the feasibility and appropriateness of the state’s adopting the recommendation. The Board established a Study Review Team subcommittee to coordinate this effort. The Review Team initiated its efforts in December of 2011, breaking down the initial work effort into individual chapter teams, and proceeding with a series of many meetings and work sessions over the following months. The Review Team kept the EESE Board apprised of its progress and began formally presenting draft material in April of 2012. The meetings of the EESE Board from April through October have focused largely on the review and discussion of this work effort. In sum, thousands of hours of work effort by the EESE Board, particularly including the participants in the Study Review Team, have been invested in this process.

Several key themes emerged from the EESE Board review and evaluation of the Independent Energy Study. These themes are reflected in the EESE Board recommendations provided in the following section.

1. The current energy policy environment, while generally positive, is fragmented and subject to frequent modifications. This has led to an environment of uncertainty and reduced efficiency in program design and delivery. One example is the number and variety of loan and rebate program offerings for energy efficiency. Consumers would benefit from a more comprehensive and consistent approach providing coordinated promotion and enrollment and long-term sustainability. In addition, limited resources can be and have in some cases been re-directed in response to short term priorities, such as the reallocation of energy efficiency funds to meet shortfalls in the Electric-Assistance-Program funding. Short-term changes in resource allocation disrupt program planning and execution and undermine long-term goals. Finally, while there are a number of Commissions, agencies, divisions, and Boards within state government that each have a share of the responsibility for guiding energy efficiency and sustainable energy policy in New Hampshire, there is no single entity with lead responsibility to make sure New Hampshire citizens gain the greatest possible benefit from energy efficiency and sustainable energy. A lead entity, with the responsibility and the resources for assessing and developing specific goals to achieve state energy policy objectives and for monitoring and evaluating results over time would significantly enhance the consistency and sustainability of the state's energy policy objectives².
2. Policy and program choices should consistently focus on supporting market infrastructure and development. The very long-term objective of energy policy should be to achieve fully functioning and efficient markets for energy efficiency and sustainable energy resources that do not require government intervention or subsidies but merely require a consistent and level playing field of rules, regulations and codes. In many markets and sectors this may be unrealistic, but the concept of market stability, efficiency and effectiveness should be a consistent key factor in policy and program design³. The goal is not for government to create fixed entitlements but to encourage functioning market structures that provide consumers and businesses with more options and better choices that achieve the long term energy priorities of efficiency, sustainability, lower costs and reduced uncertainty of benefit for all.

² One example of an effective goal setting and evaluation process is in the context of regulated utility implementation of the CORE energy efficiency programs under the oversight of the PUC. Formal plans and goal setting is a key part of the regulatory oversight process, as is comprehensive monitoring and evaluation of program results.

³ The RPS program is a good example of a program that uses market forces to encourage development of renewable resources by establishing specific long-term goals and implementing a market-based mechanism (tradable Renewable Energy Certificates) to achieve those goals.

3. The state has achieved significant positive results in energy efficiency and renewable resource development with limited direct financial resources largely as a result of positive collaboration and commitment to cost-effectiveness. The state’s Interagency Energy Task Force, Low-Income Weatherization and the CORE utility programs are good examples of sustained and effective programs with outstanding results. However, these initiatives and others have been hampered by financial constraints that result in lower savings – judicious increases in funding and staff support in some areas would provide significant added benefits to the state and its consumers.
4. Energy policies and programs generally would benefit from increased coordination and some degree of centralization to improve efficiency and effectiveness. The EESE Board believes a significant measure of such improvements can be achieved through collaboration and cooperation, and in some areas, such as the utility CORE energy efficiency programs and the NH Energy Code Collaborative, stakeholder initiatives already exist that are working to implement appropriate recommendations from the Independent Energy Study. State energy policy should support and expand these collaborative efforts and work to create a more stable and sustained regulatory and administrative framework for continued evolution.

Summary of EESE Board Recommendations

On the basis of its detailed review and assessment, the EESE Board offers the following recommendations as key priorities for implementation.

First, the EESE Board believes a clear articulation of a comprehensive energy policy in support of energy efficiency and renewable resource development would be of significant long-term benefit to the state. Such a policy statement would set the tone and direction for state and private initiatives in the coming decades and help alter the trajectory of state energy production and consumption from one largely dependent on imported fuels and external influences to one reflecting greater progress towards maximum efficiency and self-sufficiency, with the goal of reducing overall energy bills and increasing the resilience of the New Hampshire economy to the unavoidable future global energy price shocks. One key feature of such a policy statement would be to define a flexible and analytically-grounded process, including stakeholder engagement, for the development and assessment of specific energy policy goals, and a corresponding process for measuring and reporting on the state’s progress towards those goals. Moreover, the state should assign responsibility and resources for the oversight of this goal setting and evaluation process to an appropriate statewide entity. While this overall recommendation can partially be achieved through administrative and regulatory action under the current legislative framework, or through

Executive Order, the ability of the state to make significant and coordinated progress will depend on legislative leadership.

Second, the EESE Board recommends that the state move towards the development of an Energy Efficiency Resource Standard (EERS) as a means to promote cost-effective energy efficiency as the first priority energy resource of choice for New Hampshire. While there are a variety of approaches for implementing EERS, the key requirement is to define an entity and a process for setting energy efficiency goals and targets and a mechanism for coordinating and evaluating the progress towards those targets and the achievement of those goals through time⁴. The utility CORE programs under the oversight of the NHPUC, with some modifications, could serve as a foundation for implementation of EERS relatively quickly and efficiently. The transition to an EERS could potentially be undertaken by the NHPUC under its current regulatory authority, however enabling legislation would be a significantly more powerful tool that would confirm the legislative support and provide a continuing legislative framework for EERS implementation over time. Significantly, the long-term objective of an EERS is not a permanent government function but the facilitation of the market transformations necessary to create an environment for personal, business and government decisions that achieve cost-effective energy efficiency implementation.

Third, the EESE Board has identified the Renewable Portfolio Standard (RPS) as a key and appropriate policy supporting renewable resource development, one that the state should seek to sustain and continue to improve through incremental changes in the underlying statutory and regulatory framework. The RPS will require continued assessment and refinement of the compliance standards and alternative compliance payment levels in response to changing market conditions. The responsibility for determining and administering these adjustments should be delegated to a regulatory process relying on quantitative analysis and effective stakeholder representation. In addition, efforts to prioritize development of in-state resources, such as those embodied in Senate Bill 218, which was passed in the 2012 legislative session and is now law, should continue. Finally, state policy should affirm that the RPS is a long-term market structure with stable rules and requirements that will apply after 2025, in order to support the long-term financing necessary for renewable resource development.

The EESE Board is making a number of discrete recommendations that are more modest but which provide excellent near term opportunities for implementation. These include:

- While augmentation of funding for low-income energy programs is of greater importance, in the near term for the NH low-income energy-efficiency programs, complete the

⁴ A federally-funded contract has recently been awarded by OEP and approved by Governor and Council - that will provide an important review and set of recommendations on the implementation of an EERS for the State of New Hampshire. The project will result in the drafting of an EERS proposal in early 2013 and will involve subsequent stakeholder engagement that would be concluded well in advance of the 2014 legislative session.

implementation of shared IT resources and common reporting standards to the extent possible consistent with funding agency requirements (Chapter 6)

- Improve the coordination of existing energy-efficiency loan programs as the ARRA-funded programs begin winding down by continuing to pursue collaborative efforts among program administrators (Chapter 10)
- Clarify in law that the NH RPS program will continue beyond 2025, in recognition of the commercial financing needs of prospective renewable energy projects (Chapter 7)
- Provide the resources necessary to complete a comprehensive state development plan mandated by RSA 9-A (Chapter 11)
- Given the passage of SB 252 (2012 Session) that extended the maximum length of performance-contract terms for state agencies, identify high-value projects that can move forward on an expedited basis (Chapter 13)

In several areas, the EESE Board has determined that many excellent recommendations from the Independent Energy Study are already being considered and in some cases implemented in the context of existing regulatory, programmatic or stakeholder initiatives. Specifically, all of the recommendations from Chapter 4 Residential Energy Efficiency are being addressed in the ongoing stakeholder process associated with the CORE energy efficiency programs. Similarly, the recommendations in Chapter 12 relative to Energy Codes are being addressed in the New Hampshire Energy Code Collaborative process and many of the recommendations in Chapter 13 Government Leading by Example fall under the purview of the Interagency Energy Efficiency Committee. The details of these recommendations are discussed in the Chapter Syntheses prepared as working documents by the Review Team.

Finally, the EESE Board is making a number of specific recommendations that have not been highlighted in this narrative but are nevertheless felt to be excellent recommendations that should be pursued. A summary of all of the EESE Board recommendations, including those not referenced in this narrative, is provided in the Recommendation Matrix at the end of this Report. The Matrix identifies the Chapters of the Independent Study in which the policy issue was raised and lists the recommendations resulting from the EESE Board review. Additional columns indicate whether the priority is short, medium or long term, and identifies the lead entity or agency responsible for implementation of the recommendation.

The Future of the EESE Board

In the context of this Report on the Independent Study, the EESE Board also believes it is an appropriate time to review its own statutory charter. The EESE Board (Energy Efficiency and Sustainable Energy 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,” but the ten statutory responsibilities for the Board are wide-ranging. However, as noted in the *Office of Legislative Budget Assistant’s (LBA) Audit Report of the NH PUC* ⁵:

Statute enumerates numerous EESE Board responsibilities, however the Board did not have sole authority in many areas and the Legislature did not appropriate funds for it. As a result, while the EESE Board has been a clearinghouse for information sharing and exploration of relevant energy issues, it has not fulfilled all of the duties outlined in its enabling statute.

The LBA Audit concludes, “Legislature may wish to reconsider whether the EESE Board’s purpose, objectives, and functions can be accomplished with the limited authority and resources available to it.” The Auditee Response in the LBA Audit Report notes that both the EESE Board’s founding Chair and current Acting Chair concurred with the above recommendation and proposed that the EESE Board would respond to that recommendation in this Report.

Furthermore, in the 2012 legislative session, the language of Chapter 281 of the NH Laws of 2012 (HB 1490) included a provision that repealed, effective January 1, 2013, the EESE Board charge of “Providing recommendations at least annually to the public utilities commission on the administration and allocation of energy efficiency and renewable energy funds under the commission’s jurisdiction.”

Finally, the EESE Board recommendations above and in the Recommendations Matrix include provisions intended to clarify the roles and responsibilities for the various entities involved in state energy policy development and implementation. The EESE Board is one of those entities, and as the LBA Audit noted, there is a need for clarification of responsibilities and an appropriate matching of resources to those responsibilities. In the context of the development of an overarching energy policy, the roles, responsibilities and resources of the EESE Board or any successor Board should be clearly articulated.

The EESE Board does not have a specific recommendation regarding its future statutory charter, as it would depend on the nature of the changes in roles and responsibilities assigned under a new energy policy framework. However, some of the functions and characteristics of the EESE Board are critical to include in any new energy policy framework. Among the key features that will need to be considered are the following:

- A capacity for analytically grounded planning and analysis leading to quantitatively sound decisions;
- A stakeholder engagement process leading to broad public awareness and acceptance;
- An independence from undue influence by any one of the variety of affected interests; and

⁵ On page 51 of the Performance Audit of the Public Utilities Commission filed by the LBA in April 2012. <http://www.puc.nh.gov/EESE%20Board/LBA%20Audit/LBA%20Performance%20Audit%20Report%20April%202012.PDF>

- Clarity in the delegation of authority that insulates decision-making from short-term influences including those of a political nature.

Incorporating the above features could be accomplished in a variety of ways. All of these could be included in the delegation of lead agency responsibility discussed in our first overall recommendation above in this report. In this case, the lead agency delegation could be to an expanded EESE Board, or a similar entity that would replace the EESE Board. Or the features could be configured separately, into a planning function, an independent decision-making function and a stakeholder engagement / advisory function. Of these three, the stakeholder engagement function is probably the closest to the role the EESE Board has most effectively been serving.

However, these roles and responsibilities are structured under a new energy policy framework by far the most important consideration is that they be funded appropriately. Ideally, such funding would be linked to the program funding streams being deployed to energy efficiency and renewable energy. This would assure proper alignment of interests and would also avoid having this funding become an obligation of the state general fund.

Conclusion

Energy is both a resource that is critical to the strength of the economy, as well as a considerable drain on the economy as New Hampshire has no fossil fuel resources of its own. As such, it is almost wholly dependent upon imported resources (~90% of total supply) to heat, power and move our economy. However, there are numerous opportunities to manage the state's energy demand, supply and consumption and, therefore, take greater control of our energy and economic future. The objective of the EESE Board recommendations is for the state to take full advantage of these opportunities.

The VEIC Study report suggested numerous changes to the state's statutory, regulatory, and programmatic landscape to take advantage of these opportunities. Those most worthy of further discussion and implementation, some which have been further developed, have been carried into the synthesis reports developed for 11 chapters of the study. Realizing the benefits of these changes will require action by individuals and public, private and non-profit entities.

While some of this action may require top-down coordination, there are numerous opportunities for action to be driven from the bottom-up. The matrix that lists the EESE Board's priorities can be used to navigate the most highly prioritized recommendations and understand the parties that have been linked to implementation. In turn the individual chapter syntheses can be used to understand the particular details of the recommendations and the full VEIC Study Report can frame the context with its in-depth background and extensive library of recommendations.