

**STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION**

DE 15-137

GAS AND ELECTRIC UTILITIES

Energy Efficiency Resource Standard

Order Approving Settlement Agreement

ORDER NO. 25,932

August 2, 2016

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In this order, the Commission approves a Settlement Agreement supported by all parties, extending the 2014-2016 Core program an additional year (through 2017) and establishing an Energy Efficiency Resource Standard (EERS). The EERS is a framework within which the Commission's energy efficiency programs shall be implemented, and the effective date for implementation is January 1, 2018. The framework consists of three-year planning periods and savings goals as well as a long-term goal of achieving all cost-effective energy efficiency. The electric and gas utilities will be administrators of the EERS programs to achieve specific

statewide savings goals for the 2017 Core program and for the first three-year period of the EERS. Specific programs will be subject to Commission approval and such approval will require a demonstration that they are cost effective in subsequent proceedings before the Commission. This order also establishes a recovery mechanism to compensate the utilities for lost-revenue related to the EERS programs, and approves the performance incentives and the processes described in the Settlement Agreement for stakeholder involvement, evaluation, measurement and verification, and our oversight of the EERS programs.

I. BACKGROUND

On May 8, 2015, the Commission opened this proceeding to establish an Energy Efficiency Resource Standard. An EERS is a policy that sets specific targets or goals for energy savings, which utility companies serving New Hampshire ratepayers must meet. The Commission indicated that the EERS would include long- and short-term, energy-type-specific savings goals based on sales volumes for 2014. In addition, the Commission defined the scope of the proceeding to include consideration of funding requirements, program-cost recovery, lost-revenue recovery, performance-based incentives, program administration, evaluation, measurement, and verification (EM&V), and ways to transition from the existing energy efficiency paradigm to the EERS. The Order of Notice and subsequent docket filings, other than any information for which confidential treatment is requested of or granted by the Commission, are posted on the Commission's website at: <http://puc.nh.gov/Regulatory/Docketbk/2015/15-137.html>.

Until now, the Commission has implemented energy efficiency primarily through the Core programs, which has evolved in the last 15 years into a statewide system used by electric and natural gas utilities to deliver energy efficiency products and services to their customers or

members.¹ Since 2001, the Systems Benefits Charge funding for Commission-regulated energy efficiency has remained at \$0.0018 per kWh level. The programs have been designed to deliver as much energy efficiency savings as possible within the bounds of that funding, plus additional funding in recent years from the Regional Greenhouse Gas Initiative (RGGI) and the Independent System Operator-New England's (ISO-NE) Forward Capacity Market (FCM). Establishing an EERS presents an opportunity to set savings goals based on savings potential in addition to consideration of the funding level.

Several New Hampshire specific studies of energy efficiency potential have been conducted in the last decade, and all suggested that additional opportunities for cost-effective energy efficiency exist beyond those attained through the Core program.² In September 2014, the Governor's Office of Energy and Planning released a 10-year State Energy Strategy, which recognized the need for an EERS:

In order to reduce energy costs by implementing more cost-effective efficiency programs, the State must set specific efficiency goals and metrics to measure progress. The Public Utilities Commission should open a proceeding that directs the utilities, in collaboration with other interested parties, to develop efficiency savings goals based on the efficiency potential of the State, aimed at achieving all cost effective efficiency over a reasonable time frame.

2014 New Hampshire State Energy Strategy, Executive Summary at ii.

On February 3, 2015, Commission Staff filed a report entitled "Energy Efficiency Resource Standard: A Straw Proposal for New Hampshire." Staff's report concluded a

¹ All of the New Hampshire electric and gas utilities except the New Hampshire Electric Cooperative (NHEC) have customers. NHEC supplies electricity to its members. Subsequent references herein to customers shall include NHEC members unless otherwise stated.

² *Additional Opportunities for Energy Efficiency in New Hampshire, Final Report* (January 2009), prepared for the Commission by GDS Associates Inc. (GDS), RLW Analytics, and Research Into Action; *Independent Study of Energy Policy Issues* (2011), prepared for the Commission by Vermont Energy Investment Corporation (VEIC); and *Increasing Energy Efficiency in New Hampshire: Realizing Our Potential* (November 2013), prepared by VEIC, GDS, and Jeffrey H. Taylor & Associates.

months-long endeavor to solicit and capture feedback on establishing an EERS. Staff's report included information about other jurisdictions, input from New Hampshire efficiency stakeholders, questions for additional consideration, and a series of preliminary recommendations.

On March 13, 2015, the Commission opened an investigative docket, IR 15-072, to receive written comments on several threshold recommendations within Staff's report. Written comments were submitted by numerous stakeholders including all of the electric and gas utilities (Joint Utilities),³ the Office of the Consumer Advocate (OCA), the Governor's Office of Energy and Planning (OEP), and the Department of Environmental Services (DES). The comments reflected unanimous support for the Commission's establishment of an EERS at that time, under existing statutory authority, to advance a policy of energy efficiency as a least-cost supply resource for customers of the Joint Utilities. Some support for an EERS, however, was qualified by requests to consider the universe of EERS issues, and to engage expert assistance at the time of its development. Based on those comments and the recommendations contained in Staff's Straw Proposal report, the Commission opened this proceeding to establish an EERS and to examine the issues related to a successful launch of this important and timely policy.

II. PROCEDURAL HISTORY

The Commission named the Joint Utilities as mandatory parties, and received appearances from each. In addition, the OCA notified the Commission of its participation by statutory right on behalf of residential ratepayers. RSA 363:28, II.

³ Liberty Utilities Corp. (Granite State Electric) d/b/a Liberty Utilities (Liberty) and Liberty Utilities Corp. (EnergyNorth Natural Gas) d/b/a Liberty Utilities (jointly, Liberty); Unitil Energy Systems, Inc., and Northern Utilities, Inc. (jointly, UES); Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource); and NHEC. Although the order refers to NHEC as one of the Joint Utilities, we recognize that our jurisdiction over NHEC is limited by law. RSA 362:2.

Petitions to intervene were filed by DES; OEP; Conservation Law Foundation (CLF); New Hampshire Community Action Agencies' Southern New Hampshire Services, Inc., and Belknap-Merrimack Counties, Inc.(CAA); The Jordan Institute (Jordan); The Way Home (TWH); New Hampshire Sustainable Energy Association (NHSEA); the New Hampshire Community Development Finance Authority (CDFA); the New England Clean Energy Council (NECEC); TRC Energy Services (TRC); the Acadia Center (Acadia); Representative Robert A. Backus, *pro se*; Henry Herndon, *pro se*; and MCR Performance Solutions, LLC (MCR). The Commission denied Mr. Herndon's and MCR's intervention since neither party has any "rights, duties, privileges, immunities or other substantial interests that may be affected by the proceeding," and both could participate without being made a party since they have access to docketed materials on the Commission's website and may make comments at hearing or in writing pursuant to N.H. Code of Admin. Rules Puc 202.06.

The Commission held a prehearing conference on June 3, 2015, and, afterwards, the parties met in a technical session to develop a proposed procedural schedule and determine other procedural requirements for managing the docket. On June 10, 2015, Staff filed a report of the technical session and a request, on behalf of the parties, for additional time to develop the procedural schedule, which the Commission approved. The Parties and Staff met again on June 29, 2015, to develop a procedural schedule, which included multiple technical sessions each focused on a specific topic or issue identified by the Commission in its Order. The well-attended technical sessions featured presentations from the Joint Utilities as well as New England regional experts. The presentations included information about how other New England states have structured and administered their EERS programs and the Joint Utilities' experience with those programs.

Following the technical sessions, NHSEA along with CLF, Jordan, and NECEC (collectively, the Sustainable Energy Group)⁴, Staff, and the Joint Utilities filed EERS proposals supported by testimony. Also, TRC and Acadia filed comments at that time. After those filings, a period of discovery occurred, and responsive testimony was filed by the OCA, the Sustainable Energy Group, and the Joint Utilities. Also, the Acadia Center and TWH filed reply comments.

Settlement negotiations followed, and, on April 27, 2016, a Settlement Agreement was filed by Staff on behalf of all parties except Rep. Backus. A hearing on the Settlement Agreement took place on May 2, 2016. At that hearing, the Settling Parties spoke strongly in favor of approving the agreement, and Rep. Backus supported those positions.

III. ORIGINAL AND SETTLEMENT POSITIONS OF THE PARTIES

The full EERS proposals and comments covered topics studied by the parties in the technical sessions as well as others, including: program administration; savings targets; funding; cost recovery; recovery of lost revenue; performance incentives; stakeholder involvement; evaluation, measurement and verification (EM&V); regulatory process; and implementation date. The parties included energy efficiency stakeholders who have participated for years in the Commission's programs and represented a broad spectrum of interests. The filings unanimously supported the creation of an EERS and featured many commonalities. Differences between the parties' original positions related primarily to the recommended savings targets, lost-revenue recovery, and the implementation date. The Settlement Agreement resolved all issues as described below.

⁴ The Nature Conservancy join in this filing but was not a party to this proceeding.

A. Guiding Principles

1. Staff

Staff described several principles that should guide the EERS development. According to Staff, the EERS should build on the Commission's existing energy efficiency policy and experience with the Core programs. The EERS should respond to the recommendations in the 10-year State Energy Strategy and should be consistent with State law and industry best practices. Also, the EERS should include challenging but achievable statewide savings targets that are consistent with targets in other jurisdictions and the targets suggested in New Hampshire specific studies.

2. Joint Utilities

The guiding principles recommended by the Joint Utilities included establishing savings targets with a long-term goal of all achievable cost-effective energy efficiency within the context of available, sustainable funding; using at least a three-year, short-term planning period; considering rate impacts on customers in setting short-term goals; focusing primarily on comprehensive electric and gas programs with secondary focus on fuel neutral programs; continuing joint coordination of programs by the electric and gas utilities; driving innovation in technology, outreach, and regulation to accelerate energy efficiency gains; leveraging the private financing market; and increasing public awareness of the benefits of energy efficiency.

According to the Joint Utilities, those guiding principles are consistent with the Commission's existing energy efficiency policy, which supports the award-winning, innovative, Core programs that have had a significant, positive impact on utility customers across the state. The Joint Utilities' support the creation of an EERS, because they believe an EERS will also provide significant benefits for New Hampshire utility customers.

3. The Way Home

TWH supported the guiding principle espoused by the Joint Utilities that energy efficiency programs be available to all customers, including low-income residential customers. TWH defined low income as at or below 200 percent of the federal poverty guidelines.⁵ According to TWH, approximately 20 percent of New Hampshire residents are considered low income by this standard.

B. Program Administration

1. Staff

Staff discussed the use of independent third-party administrators in other jurisdictions and noted the benefits of such a structure. Staff observed, however, that the Joint Utilities have effectively administered the Core programs. Consequently, Staff recommended that the Joint Utilities administer the EERS programs at this time.

2. Joint Utilities

The Joint Utilities recommend that they administer the EERS programs based on their years of successful experience as administrator of the Core programs and their commitment to energy efficiency's success. According to the Joint Utilities, they have the knowledge, infrastructure, and relationships in place to scale up and transition the Core programs quickly to EERS programs. In support, the Joint Utilities noted their deep understanding of customer usage, their established and widespread vendor networks, their access to expertise from other jurisdictions, and the findings of several studies that customers consider utilities as trusted advisors on energy efficiency. The Joint Utilities also provided recent examples of their ability to scale up Core programs quickly and effectively beyond planned program budgets.

⁵ For a household of one, 200 percent of the federal poverty guidelines is \$23,450 in annual income. For a household of two, low-income eligibility is capped at a total household annual income of \$31,860.

3. Sustainable Energy Group

The Sustainable Energy Group opined that the Joint Utilities are capable of serving as administrator of the EERS programs. Nonetheless, the Sustainable Energy Group recommended that the Commission consider the benefits of transitioning over time some or all of program delivery to a non-utility statewide program administrator. Competitively bidding out the entire portfolio or individual pieces of the EERS may maximize private funding and deliver savings in a manner that allows for all potential administrators, utilities, and third parties alike, to offer comprehensive, least-cost savings. According to the Sustainable Energy Group, important conditions for successful administration include the right incentives, oversight, underlying procurement and resource acquisition policies, clarity of the purpose for pursuing efficiency, consistency of policy over time, and consensus among stakeholders.

4. TRC

TRC recommended programs that leverage consumer engagement efforts from multiple sources including the Joint Utilities and third-party administrators.

5. The Way Home

TWH supported the Joint Utilities' administration of EERS programs, at least in the short term. According to TWH, with appropriate performance incentives, rate structures, and program oversight in place, the Joint Utilities should have the incentive and initiative to continue implementing robust energy efficiency programs effectively, to the mutual benefit of ratepayers, shareholders, and the natural environment of the state.

6. Settlement Agreement

The Settlement Agreement provides for the Joint Utilities' administration of the EERS programs, at least for the first three years. In addition, the Settling Parties recommend that no

changes to the Joint Utilities' administrative role may be proposed prior to January 1, 2020, or be effective prior to January 1, 2021.

C. Savings Targets and Planning Periods

1. Staff

Staff proposed two sets of statewide, three-year, short-term savings targets and ten-year, “notional” long-term targets, referred to as Plan A and Plan B. Staff's targets, as well as all other parties' target recommendations, were expressed as a percent of actual 2014 kilowatt-hour (kWh) or one million British thermal units (MMBtu) sales. Staff noted that its annual year-over-year targets for gas savings were lower than its annual year-over-year electric savings targets, because the gas utilities have reached a higher level of savings historically relative to 2014 actual MMBtu usage.

Staff's Plan A sets the initial short-term cumulative targets at 1.82 percent for electric savings and 2.14 percent for gas savings over a three-year period. Both of the Plan A short-term targets are higher than current Core savings targets but lower than Plan B levels. Plan B's initial three-year cumulative targets are 2.04 percent for electric and 2.39 percent for gas. Staff estimated that using Plan B's short-term savings targets would result in cumulative kWh savings of approximately 220 million kWh by the end of the first three-year period, and lifetime kWh savings of approximately 3.1 billion kWh.⁶ Staff's ten-year long-term targets for Plan A were 9.74 percent for electric and 10.20 percent for gas. Staff's long-term targets for Plan B were 14.48 percent for electric and 13.96 percent for gas. Staff referred to its long-term target as a “guidepost” and recommended that it be refined during the first three-year period of the EERS.

⁶ Based on average life of 14.3 years – *i.e.*, cumulative kWh savings of 220 million kWh x 14.3 years average life = lifetime kWh savings of 3.146 billion kWh.

Staff asserted that both Plan A and Plan B targets are consistent with the Commission's energy efficiency policies; the State's 10-Year Energy Strategy; RSA 378:37, as well as a recent change in the Least Cost Integrated Resource Planning (IRP) law; and RSA 378:38, which requires utilities to maximize the use of cost-effective energy efficiency. Staff also stated that it developed its proposed savings targets to meet the criteria for an EERS as established by the American Council for an Energy-Efficient Economy (ACEEE), including creating a framework that promotes market stability. Further, according to Staff, its savings target recommendations are comparable to savings targets in other New England states and numerous Midwestern states, as well as to the potential savings identified in New Hampshire specific studies conducted during the last decade. Describing them as reasonable and achievable, Staff recommended the Commission's adoption of Plan B savings targets.

2. Joint Utilities

Similar to Staff, the Joint Utilities recommended a framework that includes short-term planning periods of at least three years. According to the Joint Utilities, transitioning from the Core's two-year planning period to a three-year planning period will provide more stability and continuity in program delivery, which will assist customers and other stakeholders in planning and investment decisions. The Joint Utilities contended that three-year periods would allow flexibility to adjust specific savings targets in response to changes in market conditions and to New Hampshire specific information such as results from evaluation and technical potential studies. A three-year planning period is also consistent with the EERS planning periods used in neighboring states and with the ACEEE's definition of an EERS.

Under the Joint Utilities' framework, the Commission would set annual kWh and MMBtu sales reduction targets, customized for each utility to account for different market

conditions and opportunities in different service territories and for different classes of customers. The Joint Utilities cautioned against setting targets based solely on aligning New Hampshire with neighboring jurisdictions. According to the Joint Utilities, savings targets should come from demonstrated savings potential in New Hampshire, although little weight should be given to prior studies, which are outdated at this point. The Joint Utilities recommended that savings goals should only apply to regulated fuels, but savings related to unregulated fuels should be identified and tracked so that associated benefits are captured and reported. The costs to achieve the savings targets should be fully funded and, in setting the targets, the Commission should be mindful of the impacts of such funding on customers. Citing the ACEEE, the Joint Utilities argued that the EERS long-term goal should be all achievable cost-effective energy efficiency.

3. Sustainable Energy Group

The Sustainable Energy Group recommended setting explicit quantitative short-term goals, preferably expressed as a cumulative goal over a three-year term as well as measured reductions in peak demand. Short-term targets, stated the Sustainable Energy Group, allow for greater flexibility and consideration of emerging and changing technology. Specifically, the Sustainable Energy Group recommended as reasonable and achievable, cumulative short-term goals of 3.1 percent for electric savings and 2.25 percent for gas energy savings for the 2017-2019 period.⁷ The Sustainable Energy Group also recommended nominal interim annual targets of 0.8 percent, 1.0 percent, and 1.3 percent for electric savings and 0.7 percent, 0.75 percent, and

⁷ The Sustainable Energy Group noted that their recommended targets are based on net savings (*i.e.*, not including “free rider” participants and including “spill over” participants) and do not include savings from updated codes and standards, self-direct customers, and before-the-meter projects. A “free rider” participant is one whose savings is counted in the program but who would have made the efficiency investment even in the absence of the program. A “spill over” participant is one who made efficiency investments but who did not participate in the program and was therefore not counted. Should gross or other savings be counted, the Group recommended that the Commission set even higher savings targets.

0.8 percent for gas savings. The Sustainable Energy Group described their recommended targets as well below actual achievement and near-term goals in most New England states.

According to the Sustainable Energy Group, longer-term goals may also be appropriate and are valuable, both as aspirational metrics and to express a commitment to efficiency in the future. The changing landscape of energy and efficiency, however, suggests that these may be best expressed in qualitative terms, such as all cost-effective energy efficiency. The Sustainable Energy Group opined that such a qualitative long-term goal can be quantified based on periodic revising of what is cost-effective given conditions at the time. A goal of all cost-effective energy efficiency, the Sustainable Energy Group stated, is consistent with New Hampshire's 10-year State Energy Strategy, RSA 378:37, and the Commission's objective of ensuring just and reasonable rates. In addition, to provide the confidence that businesses need to enter the efficiency market and invest for future growth, the Sustainable Energy Group recommended that long-term goals should not be used as a ceiling or an arbitrary maximum if and when greater investments in efficiency are justified. To achieve all cost-effective energy efficiency over the long term, the Sustainable Energy Group recommended mid-term annual goals of 2 percent and 1 percent, for electric and gas, respectively, by 2021.

For electric utilities, the Sustainable Energy Group also recommended a peak demand reduction target, because peak demand growth drives electricity prices by creating the need for additional generation, transmission, and distribution capacity requirements, and by driving up wholesale energy prices. According to the Sustainable Energy Group, that target should be set at a minimum of the expected peak demand reduction from a comprehensive efficiency portfolio designed to reach the electric savings target.

The Sustainable Energy Group opined that increasing energy efficiency targets can mean lower customer bills, improved customer choice, enhanced system reliability, and increased economic activity statewide. According to the Sustainable Energy Group, those objectives are consistent with New Hampshire's Electric Utility Restructuring law, RSA 374-F:3, X, prioritizing the reduction of market barriers to investments in energy efficiency, not reducing cost-effective customer conservation, and targeting cost-effective efficiency opportunities that may otherwise be lost due to market barriers. Energy efficiency resources are particularly critical, the Sustainable Energy Group argued, given the current regional landscape of retiring generation, decreased supply diversity, and the need to meet significant environmental goals. To meet increased savings goals, the Sustainable Energy Group recommended statewide delivery of some efficiency services, which can provide consistency in program offerings and brand recognition as well as economies of scale in terms of marketing, vendor management, and other administrative needs.

4. Acadia

Acadia provided information and recommendations concerning savings targets. All New England states, according to Acadia, far exceed existing New Hampshire savings goals. For example, compared to the Core electric savings goals for 2016 of 0.68 percent, Rhode Island's electric savings goal is 2.55 percent, and compared to the Core gas savings goal for 2016 of 0.62 percent, Rhode Island's gas savings goal is 1.05 percent.

Acadia recommended that savings targets be approved on three-year cycles. Specifically, Acadia recommended ramping up New Hampshire's savings goals during the first three years of the EERS to 2.5 percent cumulative electric savings and 1.25 percent cumulative gas savings.

5. TRC

TRC recommended aggressive energy savings mandates to drive increased investments in energy efficiency. TRC suggested long-term savings targets that will lead to all cost-effective energy efficiency as well as energy savings that are on par with other New England states. TRC also provided information about the energy efficiency markets in California, New York, and New Jersey, which it described as robust and mature. TRC suggested that the Commission look to those jurisdictions for best practices to launch an EERS effectively and efficiently.

6. The Way Home

TWH agreed with the Joint Utilities' recommendation to establish specific, short-term savings goals with an ultimate savings target of all achievable cost-effective energy efficiency. TWH similarly noted that such a long-term target is consistent with New Hampshire's energy policy, which recognizes efficiency as a first-priority, least-cost resource. TWH strongly recommended that energy efficiency services to low-income residential customers, such as the Core Home Energy Assistance (HEA) program, continue. According to TWH, without such services, efficiency is not available to all customers, and the goal of achieving all cost-effective energy efficiency is undermined.

TWH supported a three-year planning cycle and cumulative targets, along with annual implementation plans and annual interim nominal targets. TWH suggested that shorter-term targets should be quantified as electric kWh and gas MMBtu annual sales reductions based on demonstrated savings potential and should apply only to regulated fuels. Energy savings from unregulated fuels, according to TWH, should be counted towards quantifying the benefits of energy efficiency measures in the cost-benefit tests by which all programs are screened.

7. Settlement Agreement

The Settlement Agreement provides deadlines for the Joint Utilities' filing of a 2017 Core plan as well as the Settling Parties' expectations for that plan, including statewide savings goals of 0.60 percent for electric savings and 0.66 percent for gas savings, using 2014 delivered sales as the baseline figure. The Settlement Agreement also defines the savings targets for the first three-year period of the EERS, 2018-2020, and describes the collaborative process by which the plan for that period shall be developed within the proposed framework. The cumulative electric savings goal is 3.1 percent of delivered 2014 kWh sales, with interim annual savings goals of 0.80 percent, 1.0 percent, and 1.3 percent. The cumulative gas savings goal is 2.25 percent of delivered MMBtu 2014 sales, with interim annual savings goals of 0.70 percent, 0.75 percent, and 0.80 percent. The Settling parties agree that future goals will be determined in the planning processes related to the second and any subsequent three-year EERS periods, with the intent of attaining the goal of achieving all cost-effective energy efficiency.

D. Costs and Funding

1. Staff

Staff recommended that the utilities recover the just, reasonable, and prudent costs incurred in developing, promoting, and delivering the EERS programs. To the extent possible, Staff also recommended allocating program spending based on class-specific sales volumes, which is consistent with long-standing Commission policy.

For the first triennium, Staff recommended funding most of the utilities' cost recovery with increases to the System Benefits Charge (SBC) and the Local Distribution Adjustment Charge (LDAC). The remaining costs, according to Staff, would be covered by existing funding from RGGI and the ISO-NE FCM. Staff observed that, recently, federal funding has been

available and used to support on-bill and third-party financing options for certain Core programs, but that funding is only available for a limited period of time and its future is uncertain.

To supplement public funding, Staff recommended exploring and developing private funding options, which could include loan portfolio sales and asset-backed securitization. According to Staff, private funding supplementation is necessary to achieve all cost-effective energy efficiency, but requires market growth, as well as stability and benefits from standardization of products, processes, and the availability of accurate risk and performance data.

Staff estimated the costs of Plan B for the first triennium, including the costs of lost revenues, performance incentives, several resources for an EERS advisory board, and inflation, as approximately \$108 million for electric and \$32 million for gas. To recover those amounts, the SBC would need to be increased from \$0.0018 per kWh to rates within the range of \$0.0022 to \$0.0036 per kWh, and the energy efficiency portion of the LDAC would need to be increased from \$0.0291 per therm to rates within the range of \$0.0340 to \$0.0450 per therm. Staff estimated the monthly bill impact of the SBC increase under Plan B for the first triennium on an average residential electric customer, with monthly usage of 700 kWh per month, as an increase of \$0.25 to \$1.27 per month. Staff estimated the monthly bill impact of Plan B on a General Service customer using 7,000 kWh per month as an increase of \$2.53 to \$ 12.70 per month. Staff's calculation of SBC bill impacts alone, did not attempt to estimate any of the additional customer savings resulting from the increased energy efficiency measures. Staff did not calculate monthly bill impacts of the LDAC increases associated with Plan B, because the LDAC is utility- and customer-class specific.

2. Joint Utilities

Like Staff, the Joint Utilities recommend funding the EERS with the SBC and LDAC. According to the Joint Utilities, customers are the most reliable and practical sources for funding energy efficiency programs. As the primary beneficiaries of the energy efficiency measures installed, utility customers are more likely to participate by partially funding the programs. Because the SBC and LDAC are variable rates (*i.e.*, applied on a per kWh and per therm basis) and are set according to consumption, using them to fund the EERS will impact customers according to their usage and send an enhanced price signal for using energy more efficiently, which is consistent with the goal of an EERS.

The Joint Utilities observed that the Commission has the authority to raise the SBC or the LDAC to levels it deems just and reasonable, and, because they are already the primary methods of funding the Core programs, changes to those rates can be readily accomplished. Also, funding the EERS primarily through the SBC and LDAC is consistent with how other jurisdictions have funded their EERS programs. In addition, the Joint Utilities opined that third-party financing alone is not as stable or reliable a source of funding as the SBC and LDAC, and will not support the goal of an EERS to significantly increase energy efficiency activity.

The Joint Utilities provided examples of bill impacts to a typical residential electric customer at the current rate and rates based on two increased funding levels. With no change to the SBC, there would be no change to customer bills. Estimated savings, based on 2014 delivery sales at current SBC rate, would be between 0.36 percent and 0.48 percent. With a 50 percent increase to the SBC, from \$0.0018 per kWh to \$0.0027 per kWh, estimated savings would be between 0.52 percent and 0.68 percent of 2014 delivery sales, and funding would increase by nearly \$10 million, increasing a typical residential customer's bill by \$0.56 per month. If the

SBC were doubled to \$0.0036 per kWh, estimated savings would be between 0.67 percent and 0.87 percent of 2014 delivery sales, and the increase would provide nearly \$20 million of additional funding, increasing a typical residential customer's bill by \$1.13 per month. The Joint Utilities did not recommend approval of any specific savings level but stated that, regardless of the level set by the Commission, a uniform rate per kWh should apply to all electric utilities. The Joint Utilities also did not estimate the costs or bill impact of changes to the LDAC.

3. Sustainable Energy Group

According to the Sustainable Energy Group, the existing level of funding for efficiency in New Hampshire is below the amount that is economically efficient, and current funding is insufficient to achieve the Group's recommended targets. In setting funding levels, the Sustainable Energy Group recommended that the Commission address three areas of cost: the recovery of program costs; a mechanism to recover efficiency-related lost revenues; and performance incentives.

The Sustainable Energy Group argued that the utilities or program administrators should be able to collect 100 percent of actual efficiency program costs prudently expended, with any associated carrying costs, in addition to its efficiency-related lost revenues and performance incentives. To the extent practicable, the Sustainable Energy Group recommended that, to eliminate cross-subsidization across customer classes, each customer class (*i.e.*, residential, commercial, and industrial) should contribute to program costs in proportion to spending on programs for the customer class. The Sustainable Energy Group noted that the one exception to linking cost recovery to program expenditures is the low-income program budgets, which should be allocated first, with the remaining budgets allocated proportionally to remaining customer classes.

The Sustainable Energy Group recommended that all ratepayers contribute to efficiency programs, because all customers benefit from them. In terms of how funding is collected, the Sustainable Energy Group recommended that, in order to protect customers and ensure that efficiency spending is generating benefits, efficiency costs should not be included in base rates. Amortizing program implementation costs over a short period of time, however, may be an option if the utilities are allowed to recover carrying costs. The Sustainable Energy Group estimated that by saving 3.1 percent of retail energy sales, New Hampshire ratepayers will save \$45 million and thousands of jobs will be created.

The Sustainable Energy Group acknowledged that rate impacts will result from the implementation of efficiency programs regardless of the source of funding, because the utility's fixed costs will be collected over lower billing units. Nonetheless, cost-effective efficiency programs result in lower total bills for ratepayers even if per unit energy rates increase. According to the Sustainable Energy Group, bill impacts do not represent increased societal or ratepayer costs, but rather a shift in the allocation and recovery of sunk fixed costs among ratepayers. Despite those shifts, the Sustainable Energy Group contends that using public funds to invest in energy efficiency results in a more rational and efficient allocation of resources and increases total net economic benefits for the state. To the extent that the Commission considers rate impacts of efficiency funding, it should do so in the larger context of comparative costs for all resource acquisition and their impacts on ratepayers, including the risk of stranded costs and other large fixed capital costs that must be amortized through rates over multiple years, if not decades.

The Sustainable Energy Group recommended that the Commission view "buying" energy efficiency as akin to paying for any prudent acquisition of an energy resource. According to the

Sustainable Energy Group, energy efficiency is widely considered the lowest cost energy resource, meaning that a unit of energy saved through efficiency is less expensive than the total lifetime cost of a unit of energy from other resources such as traditional fossil fuel generation and renewable energy sources, when compared on a consistent and fair basis. This is true, the Sustainable Energy Group argued, even when no economic value is placed on the environmental, health, and economic impacts that are not currently monetized in our economy. In addition, not increasing energy efficiency at this time could disadvantage New Hampshire utility customers in terms of mandatory, socialized regional costs of transmission and distribution expansion due to peak demand. Because other states are investing more in efficiency and distributed generation, their share of the ISO-NE peak load is decreasing and, without more efficiency in New Hampshire, its ratepayers' share of load, and the associated costs, will be proportionately higher.

The Sustainable Energy Group opined that private funding is not a replacement for public funding, in part because numerous barriers exist, including uncertainty and lack of knowledge on the part of investors, the up-front investment required from the customer, and a relatively immature market for efficiency services. According to the Sustainable Energy Group, the barriers to increased private funding may be best addressed by focusing initially on ratepayer-funded energy efficiency to build the knowledge, understanding, trust, and infrastructure that can later support private funding.

4. Acadia

Acadia recommended that the Commission fund the EERS through increases to the SBC and the LDAC. According to Acadia, private financing should not be considered a standalone funding option, because it generally will not have substantial uptake in the absence of ratepayer-funded programs, and it will not capture all cost-effective energy efficiency.

Acadia provided information about the many benefits of increased energy efficiency investment that should be considered against the impacts of associated rate increases. For example, to illustrate that energy efficiency is cheaper than other supply resources, Acadia stated that New Hampshire spent \$4.5 billion on fossil fuel imports, at an average cost of \$0.14 per kWh, when the average cost of energy efficiency was \$0.0226 per kWh. Citing a 2009 study to demonstrate benefits enjoyed by all ratepayers regardless of participation in efficiency programs, Acadia stated that increasing efficiency investments to a level needed to capture all cost-effective electric efficiency over 15 years, or \$1.4 billion, would increase economic activity by \$14 billion (in 2008 dollars). Likewise, increasing gas efficiency by \$219 million over 15 years would increase state economic activity by \$4.1 billion. In addition, according to Acadia, all ratepayers benefit from decreases in the cost of generation, because less demand means lower prices in the regional forward capacity market and lower wholesale electricity prices.

5. TRC

TRC described the SBC, LDAC, and other existing mechanisms used to fund energy efficiency in New Hampshire as a solid foundation for structuring an EERS market. TRC's recommendations for funding, however, focused on the proceeds from RGGI auctions, most of which are not available for efficiency by statute.

6. The Way Home

TWH urged the Commission to increase public funding to the extent needed to meet the EERS targets it sets and to maintain the existing percentage allocations of program resources among customer sectors pursuant to the Core plan. According to TWH, without a commensurate increase in funding to accompany more aggressive savings goals, existing programs are put at risk.

TWH described an increase in the SBC and LDAC as the easiest and most equitable means of increasing funding to support an EERS. TWH recommended that the Commission continue its Core practice of first allocating low-income program budgets and then allocating program budgets for remaining customers. In addition, TWH recommended that the Commission consider increasing the low-income allocation above the existing 15.5 percent if private funding of efficiency is expanded under an EERS. According to TWH, allocating more public funding to low-income efficiency measures is consistent with the statutory requirement to “target cost-effective opportunities that may otherwise be lost due to market barriers.” RSA 374-F:3, X.

7. Settlement Agreement

To achieve the recommended targets for the 2017 Core extension and the first three-year period of the EERS, the Settling Parties recommend that the Commission increase the SBC and LDAC. Illustrations of the estimated costs of funding the recommended savings goals associated with those periods of time are shown in attachments to the Settlement Agreement. The Settling Parties agree that the costs to fund the EERS include the costs associated with, (1) an independent expert to assist in refining the framework, planning and implementation of the EERS; (2) an independent expert to assist with the oversight and execution of EM&V activities; and, (3) independent experts to conduct the EM&V activities of the individual programs.

In addition, the Settlement Agreement provides for an increase in the minimum low-income share of the overall energy efficiency budget from 15.5 percent to 17 percent. As proposed, the increase would take effect on January 1, 2017, and remain in effect through the first three-year period of the EERS. During that time, the Settling Parties will explore additional funding sources to augment ratepayer funding.

E. Recovery of Lost Revenues

1. Staff

According to Staff, a targeted lost revenue adjustment mechanism (LRAM) or decoupling may be used to compensate utilities for lost revenues associated with energy efficiency. LRAMs limit the recovery to sales revenue lost on account of energy efficiency activity, while decoupling permits the utility to recover the difference between its actual revenues and its authorized revenue requirement no matter the reason. With an LRAM, under certain conditions, a utility may actually earn more than its authorized revenue requirement. With decoupling, the utility would refund to customers any amount that exceeds its authorized revenue requirement. Decoupling also addresses the throughput incentive that traditional ratemaking creates (*i.e.*, higher sales equals higher revenues). Because of Commission policy requiring the consideration of decoupling only within the context of a rate case, Staff recommended the adoption of an LRAM for the initial three-year period, to be replaced thereafter by a decoupling mechanism.

Staff's LRAM included several adjustments: (1) an adjustment that would allow for the recovery of lost revenues through the LRAM only above a specific threshold level to reflect historical Core energy efficiency investment; (2) an adjustment that would reduce the lost revenues recovered through the LRAM by savings associated with the retirement of measures installed in the past; and, (3) for gas utilities only, a fuel-switching adjustment that would reduce the recovery of lost revenues through the LRAM by the amount of new gas revenues associated with program participants who convert from other fuels to high-efficiency natural gas for heating. Staff also recommended that the annual recovery of lost revenues through the LRAM be capped at 0.50 percent of sales revenue and that the costs associated with the LRAM be included in the benefit/cost test used to screen energy efficiency programs. For the first

three-year period of the EERS, Staff estimated that its LRAM would increase the costs of energy efficiency by approximately \$2 million for the electric utilities and \$0 for the gas utilities. Staff recommended recovery of lost revenues determined by the LRAM through the SBC and LDAC.

2. Joint Utilities

The Joint Utilities⁸ recommended that the EERS allow for recovery of lost distribution revenues associated with energy efficiency savings, because revenue for all components of service is reduced by implementing energy efficiency measures. That reduced revenue is a consequence of the way utility distribution rates are set, based on an approved revenue requirement, designed using assumptions of a set level of customers, demand, and consumption for each rate class, and collected, in part, through a volumetric charge. Also, between rate cases, there is no reconciliation of actual revenues to the approved revenue requirement. The Joint Utilities contended that the recovery of lost revenues would restore the assumed relationship between sales levels and revenue requirements used in setting rates through historic test year ratemaking. According to the Joint Utilities, costs increase between rate cases, and the loss of sales does not necessarily equate to a similar decrease in the fixed costs used to set rates. Therefore, without recovery of energy efficiency related lost revenues, the utility collects less than its approved revenue requirement.

The Joint Utilities proposed that each recover lost distribution revenues through a Lost Base Revenue Adjustment (LBR Adjustment). The Joint Utilities proposed a formula to calculate the LBR Adjustment for future periods:

⁸ For the purpose of this section, references to the Joint Utilities do not include the NHEC. NHEC does not seek recovery of lost revenues, because lost revenue mechanisms primarily address revenue recovery issues associated with distribution rate regulatory processes that apply to investor-owned utilities. Because NHEC is a deregulated, member-owned rural electric cooperative, it is not subject to the same regulation as the other electric utilities.

$$\text{Total Lost Revenues} = \text{Projected Cumulative Electric Savings} \times \text{Utility's Distribution Rate}$$

$$\text{Lost Revenue Rate} = \text{Total Lost Revenues} / \text{Projected Kilowatt Hours}$$

Under their proposal, the LBR Adjustment would be a factor in setting the SBC and LDAC, and lost base revenues would be reconciled annually, when the LBR Adjustment factor is set for the upcoming period. Because each utility's lost revenues may be different, each utility's SBC or LDAC may be different. The Joint Utilities opposed, and described as confiscatory, Staff's recommendations to cap or adjust lost revenues. The Joint Utilities also opposed Staff's recommendation to include lost revenues as a cost within the cost/benefit test for the purpose of screening efficiency programs.

The Joint Utilities contended that the SBC and LDAC are transparent, efficient mechanisms that can be readily implemented to recover lost revenues (as well as to fund the costs of the EERS programs). According to the Joint Utilities, the LBR Adjustment can be established without the need for a distribution rate case and would implement lost revenue recovery coincident with implementation of savings measures. In contrast, a mechanism such as decoupling would require a distribution rate case entailing a lengthy process that requires extensive resources from each utility, Commission Staff, and interested parties. Such a case, the Joint Utilities argued, would consider more than the revenue impacts of energy efficiency in determining the revenue requirement and appropriate rate mechanisms; all aspects of the revenue requirement would come into play, including issues associated with distribution capital investments, operating and maintenance costs, and rate of return. The Joint Utilities opposed implementing decoupling, contending that an LBR Adjustment leaves a utility in the financial position contemplated by its last rate case (*i.e.*, equal to where it would have been absent

efficiency activities), no better or worse, and only a lost revenue recovery mechanism isolates the effect on utility revenue of efficiency.

3. Sustainable Energy Group

The Sustainable Energy Group recommended a mechanism to permit recovery of lost revenue resulting from lower energy sales due to efficiency. According to the Sustainable Energy Group, and contrary to the Staff, lost revenue is not a cost of efficiency programs, because lost revenues would have been collected from customers even in the absence of efficiency programs. Instead, recovery of lost revenue from efficiency is simply a shift in how those authorized revenues are recovered from ratepayers.

The Sustainable Energy Group described lost revenue recovery mechanisms as designed to quantify the lost net revenue that can be recovered by the utility. To develop accurate estimates of lost revenue, the Sustainable Energy Group argued that precise evaluation, measurement, and verification are required. Best practices include independent third-party review, frequent rate cases to avoid the “pancake effect” of lost revenue recovery costs accumulating over time, and combining lost revenue recovery with performance incentives sufficient to promote increased utility investment in energy efficiency. The Sustainable Energy Group also suggested that, with an LRAM, performance incentives can be focused solely on exemplary performance. In addition, the Sustainable Energy Group noted that an LRAM allows a utility’s earnings to increase with increased sales and, consequently, it is possible for a utility with an LRAM to have sales in excess of the test year used to set rates (even with reductions from efficiency programs) and earn excess profit as well as collect lost revenues.

The Sustainable Energy Group contrasted an LRAM with decoupling, which seeks to remove the direct connection between sales and revenue, such that the utility’s fixed costs are

covered regardless of total energy sales. According to the Sustainable Energy Group, decoupling generally includes a price adjustment to “true up” revenues when sales are different than those forecasted in the rate setting process. The correction of variances should take place at least annually, the Sustainable Energy Group argued, and should accrue to the utility, or credit back to the ratepayers. With decoupling, throughput is fully decoupled from revenue, meaning it accounts for all sales fluctuations not just those related to energy efficiency. The Sustainable Energy Group noted that this could translate into benefits for customers in cases where sales increase.

In the Sustainable Energy Group’s opinion, the symmetrical treatment of revenue requirement recovery using decoupling results in, along with other benefits, the potential for both customer surcharges and refunds, rather than just surcharges, and makes full decoupling preferable to an efficiency specific LRAM. Other benefits include simplifying future rate cases and reducing the volatility of utility revenues. Consequently, the Sustainable Energy Group recommended that the Commission consider moving towards full decoupling, even if LRAM is used as an interim step. Should an LRAM be implemented first, the Sustainable Energy Group opposed incorporating the cap and adjustments that Staff recommended, and the Sustainable Energy Group recommended that the LRAM be reconciled annually.

4. Acadia

Acadia recommended that the Commission establish decoupling for the Joint Utilities in their next rate cases. Under decoupling, customers would pay two charges: one for the energy they use; and the other for the costs of the distribution system used to deliver the energy. Distribution charges would be adjusted annually so that the utility does not collect more or less

than it is allowed by the Commission. According to Acadia, decoupling complements performance incentives.

Acadia discussed Staff's recommendation of an LRAM for the initial three-year period, to be transitioned into decoupling. Acadia agreed with that approach but opposed Staff's retirement and fuel-switching adjustments. In addition, Acadia urged Staff to support decoupling in the next rate case for each utility.

5. The Way Home

TWH supported the Joint Utilities' general parameters for recovery of lost distribution revenue associated with higher levels of energy efficiency savings, and it supported the implementation of a lost revenue adjustment mechanism in the short term. TWH indicated it would take a position on Staff's recommendation to transition such a mechanism to decoupling, when a more comprehensive decoupling rate structure is proposed.

TWH agreed with the Sustainable Energy Group's (and the Joint Utilities') recommendation that lost net revenue recovery not be treated as a cost in the cost/benefit test used for efficiency programs. Doing so, TWH stated, might make it difficult to achieve energy efficiency savings comparable to neighboring states and could result in the low-income Home Energy Assistance program, and perhaps other efficiency programs, being mistakenly labeled as cost ineffective in the future.

TWH also agreed with the Sustainable Energy Group that the most equitable way of recovering lost revenue is through increases to the volumetric charges, not the fixed charges, on customer bills. According to TWH, increasing the fixed charges disproportionately harms low-income ratepayers least able to absorb them, and acts as a disincentive to customer conservation efforts and energy efficiency program participation.

6. Settlement Agreement

The Settling Parties recommend that the Commission implement an LRAM for effect January 1, 2017 and that the LRAM continue after implementation of the EERS. The LRAM will be designed and implemented consistent with the Joint Utilities' proposal, the details of which are summarized above. In addition, the Settlement Agreement requires total recovery through the LRAM to be capped at 110 percent of planned annual savings; savings to be adjusted to account for the actual month the measures are installed within the year of installation and for the results of EM&V studies.⁹ The Settlement defines the rate used to calculate LRAM recovery (*i.e.*, the "Utility Distribution Rate" in the Joint Utilities' proposed formula) to be an average distribution rate excluding customer charges.

The Settling Parties recommend, for each utility's rate cases following the implementation of the LRAM, that the savings used to calculate the utility's lost revenue be reset to zero. They also recommend that in each utility's first rate case following the first three-year period of the EERS, the utility seek approval of a new decoupling mechanism as an alternative to the LRAM, and that the LRAM cease when the new mechanism is implemented.

F. Performance Incentives

1. Staff

Staff recommended including performance incentives (PI) in the EERS framework to incent the Joint Utilities' investment in energy efficiency. According to Staff, performance incentives place energy efficiency and supply-side investments on a relatively equal financial footing and enables utility shareholders to earn a comparable return on either investment. Staff also noted the vital role of PI in the success of the Core programs.

⁹ The Settlement Agreement does not incorporate Staff's proposed threshold, retirement, and fuel-switching adjustments to the LRAM, or Staff's recommendation to include lost revenues as a cost for the purpose of determining the cost/benefit ratio of the 2017 Core and EERS programs.

Staff recommended 10 percent of annual budgets as an appropriate PI cap for both the electric and gas utilities. The 10 percent cap is the same as the existing Core PI cap for electric utilities, and it is 2 percent less than the existing 12 percent Core PI cap for gas utilities. Staff asserted that the PI cap for electric and gas utilities should be the same, because the Commission's energy efficiency programs are statewide. Staff further supported the reduction to the gas PI cap by considering it in relation to the PI caps in other New England states, which are all lower than 10 percent. To calculate PI, Staff recommended continuation of the existing (*i.e.*, Core program) cap on actual spending at 5 percent of budgeted spending. In addition, Staff recommended that the Commission review the PI level after the first triennium of the EERS, when it has data on the impact of the LRAM on the Joint Utilities' energy efficiency activities.

2. Joint Utilities

The Joint Utilities proposed that the Commission maintain the current Core PI mechanism and levels. Under their proposal, the Joint Utilities' performance would continue to be evaluated against both the achievement of the defined savings and the cost-effectiveness targets. The methodology would be based on actual program expenditures with threshold and maximum performance payout levels. The Joint Utilities contend that the existing mechanism is easy for stakeholders to understand, effectively tracks performance, and appropriately focuses on the primary factors that are most pertinent to rewarding performance. In response to the Order of Notice, the Joint Utilities opposed incorporating penalties into the EERS framework, contending that the failure to earn PI constitutes sufficient financial detriment.

3. Sustainable Energy Group

The Sustainable Energy Group recommended that the EERS provide performance incentives to allow the Joint Utilities a reasonable incentive to pursue exemplary performance

and to make efficiency investments attractive relative to other available investment opportunities. The design of the incentive mechanism, the Sustainable Energy Group stated, should ensure that ratepayers are protected from providing excessive earnings levels beyond those necessary to create that incentive and equal footing. PI should be commensurate with the lower risk of investing in efficiency as compared to supply-side investments, and to the extent existing PI levels include compensation for lost revenues, they should be reduced.

The Sustainable Energy Group discussed several PI models used in other jurisdictions and noted that New Hampshire already uses one model for the Core programs, a performance target incentive. Regardless of the model used in the EERS, it should include clearly articulated earnings and/or penalties, based on tangible, measurable performance that is under some control of the utility or program administrator. Also, the Sustainable Energy Group recommended that the performance incentive metrics be defined in a way that achieves efficiency policy objectives and guards against perverse incentives that could lead to undesirable policy outcomes. The Sustainable Energy Group noted that incentive designs where multiple parameters can be rewarded or penalized, are one way to protect against perverse effects.

4. Acadia

Acadia described PI as essential to maximizing investment in efficiency and demand-side resources. Acadia linked decoupling with PI, suggesting that decoupling enhances the effect of PI. Acadia opposed the PI levels recommended by Staff, contending that if a lost revenue recovery mechanism is approved for the EERS, PI should be more in line with neighboring states, or between 2 percent and 8 percent.

5. The Way Home

TWH supported providing the opportunity to the Joint Utilities (or other program administrator) to earn performance incentives when the Core programs transition to an EERS, because the incorporation of a reasonable PI is consistent with the policy of treating energy efficiency as a supply resource. TWH suggested, however, that if a lost revenue recovery mechanism is implemented, the Commission may want to consider reducing the current Core levels of PI, because such a mechanism shifts risk away from the utility to the ratepayer by guaranteeing the recovery of certain revenues.

6. Settlement Agreement

The Settlement Agreement recommends PI for the Joint Utilities at a target level of 5.5 percent and a maximum level of 6.875 percent of spending. Those PI levels should be effective when the LRAM is implemented, or January 1, 2017, and should remain unchanged at least through the first three-year period of the EERS. In addition, prior to the filing of the first EERS plan, the Settling Parties would review the existing PI formula and consider the way it values achievements of low-income programs. The Settling Parties agree that any recommendations for modifications to the PI formula may be included in that filing or proposed during the Commission's review of that filing.

G. Stakeholder Involvement

1. Staff

Staff recommended the creation of a permanent EERS Advisory Council made up of a broad group of stakeholders representing a variety of interests. Staff asserted that other jurisdictions use stakeholder groups to develop consensus and energy efficiency policy recommendations. According to Staff, the Advisory Council should include representatives from

the utilities, the Commission and DES, the OCA, environmental groups, customers, energy efficiency program providers, and consultants. Staff recommended that the Commission designate the existing Energy Efficiency and Sustainable Energy (EESE) Board as the Advisory Council and authorize the recovery of funds through the SBC and LDAC for its administrative and technical support. Specifically, Staff recommended the use of an independent consultant to facilitate the Advisory Council's work and expert consultants as necessary. Staff envisioned the Advisory Council's work as including annual reports on energy efficiency achievements, coordination of studies, and development of a Technical Resource Manual (TRM). The TRM, according to Staff, would include New Hampshire specific EM&V protocols and reporting forms.

2. Joint Utilities

The Joint Utilities recognized the wide range of stakeholders who work with them to plan, deliver, and evaluate the Core programs. Stakeholders include retailers, manufacturers, equipment distributors, contractors, builders, architects, engineers, trade associations, non-profit organizations, policy makers, program evaluation vendors, and customers. According to the Joint Utilities, the stakeholders' contributions are essential to the success of the programs. Under an EERS, the Joint Utilities, like Staff, recommended that the EESE Board function as an energy efficiency stakeholder board. The Joint Utilities view the roles, responsibilities, and membership of the EESE Board as very similar to the EERS stakeholder boards in other states. EESE Board membership includes energy efficiency and sustainable energy stakeholders, state policy makers, representatives of the business community, and utility program administrators.

Similar to Staff, the Joint Utilities recommended additional resources for the EESE Board in its new role as EERS advisor. Specifically, the Joint Utilities suggested the dedication and

funding of an administrative employee and the engagement of specialized organizations such as Northeast Energy Efficiency Partnerships (NEEP) and Regulatory Assistance Project (RAP).

3. Sustainable Energy Group

To oversee and guide efforts to implement the requirements of an EERS, the Sustainable Energy Group also recommended an advisory body with sufficient resources and authority to ensure robust stakeholder involvement and to assist the Commission. According to the Sustainable Energy Group, Commission proceedings are too cumbersome to provide a forum where inclusive, informed discussions and decisions necessary to implement best practice energy efficiency programs can be conducted.

The Sustainable Energy Group recommended that the advisory body's membership include a wide range of stakeholders to ensure a balance of interests in efficiency oversight. Stakeholders should include all customer classes (individually represented), state environmental policy staff, Commission staff, consumer protection agencies, advocacy groups in the energy and environmental fields, and the energy efficiency industry. According to the Sustainable Energy Group, the Joint Utilities should be active participants in the advisory body but should not have voting privileges.

The Sustainable Energy Group noted that the EESE Board includes some features important to a robust advisory body (*e.g.*, diverse membership), but it currently has little authority and no staff or funding. To be effective, the EESE Board will need guidance from experts in energy efficiency planning, evaluation, program design, and implementation. In addition, because the members will likely have full-time jobs and will only serve in a voluntary capacity, administrative and technical support is needed to manage and conduct the basic

operations and analysis of the group. According to the Sustainable Energy Group, some jurisdictions contract for administrative support and expert resources.

4. Acadia

Consistent with the positions of others, Acadia also recommended that the Commission supplement the adjudicative process it uses for energy efficiency with a stakeholder council or board to oversee planning and administration of statewide programs through a collaborative process. Doing so ensures that the programs enjoy a broad base of support and reduces the duration and complexity of the approval process at the Commission. Acadia stated that in other states in the Northeast, stakeholder boards may spend six months or more in a collaborative plan development process with the utilities before filing plans for approval. According to Acadia, using a stakeholder body to guide efficiency investment will also reinforce high standards for programs, because the stakeholders are end users. Acadia also recommended that the advisory body have access to expert resources to balance the utilities' access to information and expertise. The EESE Board, Acadia stated, could be transitioned into an advisory body role if adequate funding is made available for such resources.

5. The Way Home

TWH echoed the recommendation of others that the EESE Board be used as an advisor to the Commission in its implementation of an EERS. TWH also observed the EESE Board's limited statutory authority and need for resources, but suggested that those limitations may be overcome by the Commission specifically designating the EESE Board's role in its order approving the EERS.

6. Settlement Agreement

The Settlement Agreement specifically provides opportunities for the EESE Board to actively participate in the development of the EERS programs within the proposed EERS framework, and in the Commission-supervised EM&V activities under the EERS. The Settlement Agreement also recommends EESE Board access to the independent planning and EM&V oversight experts.

H. Evaluation, Measurement and Verification

1. Staff

Staff considers EM&V a vital part of a successful EERS program, for program transparency and credibility. Staff described evaluation as the performance of studies and activities aimed at determining the effects of an energy efficiency program or portfolio. Measurement and verification, according to Staff, constitutes data collection, monitoring, and analysis associated with the calculation of savings from individual projects. EM&V according to Staff, ensures that the Joint Utilities are actually meeting the savings targets and spending ratepayer funds in a just and reasonable manner, and that energy efficiency programs are cost effective. Currently, the Joint Utilities administer EM&V to monitor and manage the Core programs.

To enhance EM&V under an EERS framework, Staff recommended that funding be set aside for independent consultants and for the development of a New Hampshire technical resource manual. Staff noted recent efforts in New England to develop consistent protocols and reporting for EM&V, which could be adopted where feasible. In addition, Staff recommended that the EESE Board in its role as an EERS Advisory Council guide EM&V, and that the results of EM&V impact studies be used to update savings assumptions and program design.

2. Joint Utilities

The Joint Utilities described EM&V practices for the Core programs, which include stringent and transparent reporting regarding their achievement of planned savings, participation, and cost-effectiveness goals, verification of results, onsite inspections, independent third-party market assessments, program process and impact evaluations, and annual financial audits. According to the Joint Utilities, the existing practices hold them to high standards of accountability and verification, which includes several layers of quality control.

For an EERS with increased savings goals, the Joint Utilities, like Staff, recommended that the Commission hire an independent consultant to help guide energy efficiency evaluation activities. Accordingly, the consultant would create an implementation plan and review and adjust evaluation priorities. The Joint Utilities suggested that the consultant's review could include consideration of the Environmental Protection Agency's Clean Power Plan as well as the standardization of EM&V reporting forms.

The Joint Utilities proposed that they manage the evaluation activities under the Commission's oversight. In support of their proposal, the Joint Utilities cited their procurement and contract management capabilities, which allow them to act efficiently and cost effectively. Citing a recent example, the Joint Utilities contended that their existing relationships with EM&V consultants and colleague counterparts from among their affiliates in other states will help them coordinate evaluation activities and identify best practices, current challenges, and opportunities.

3. Sustainable Energy Group

The Sustainable Energy Group opined that the success of an EERS can only be measured by assessing the extent to which energy reduction targets are actually realized. The key concepts

and requirements of EM&V, according to the Sustainable Energy Group, include rigor, transparency, and independent third-party verification, to ensure consistent and fair assessment of program performance. The Sustainable Energy Group recommended that the achievement of savings targets and earning of performance incentives be evaluated on the same basis for the sake of efficiency and fairness. In addition, the Commission and its advisory body should oversee EM&V services.

4. The Way Home

TWH generally concurred with the EM&V recommendations of other parties. In addition, TWH noted the one measurement consideration specific to low-income residential ratepayers, which is that low-income programs may fall below a benefit cost ratio of 1.0 under the Total Resource Cost test and still be approved by the Commission.

5. Settlement Agreement

The Settlement Agreement requires EM&V studies to be conducted by independent third parties retained and supervised by the Commission with the advice and participation of the Settling Parties and the EESE Board. If requested, an independent expert, separate from the independent planning expert required by the Settlement Agreement, would facilitate the Settling Parties' and the EESE Board's participation in, and provide oversight of, the EM&V study activities. One specific deliverable of the EM&V expert will be assisting with the development of a New Hampshire-specific technical resource manual by the end of the first EERS triennium.

I. Regulatory Process

1. Staff

Staff recommended leveraging the existing Core mechanisms to transition to an EERS framework. According to Staff, the Joint Utilities, as administrators, would prepare the triennial

EERS plans in collaboration with stakeholders and the EESE Board as Advisory Council, for review and approval by the Commission. Staff also recommended annual reviews during the three-year EERS periods. Those reviews, according to Staff, should include updating savings assumptions based on the results of EM&V studies. In addition, Staff recommended continuing practices developed for the Core program, including the processes for budget transfers and carrying forward unspent funds.

2. Joint Utilities

The Joint Utilities proposed developing savings targets for the EERS through a comprehensive process that validates savings targets feasibility and provides a detailed plan for specific programs. Savings target development, however, would follow an annual determination by the Commission of the funding levels. According to the Joint Utilities, the Commission uses such a process currently to set the LDAC rate for gas utilities.

The Joint Utilities proposed that, each year of the EERS, they prepare and submit to the EESE Board a draft energy efficiency plan for its review before a final plan is filed with the Commission for approval. That process would allow collaboration between the EESE Board and the Joint Utilities in a non-adjudicative setting, which the Joint Utilities believe could result in a more efficient Commission proceeding. According to the Joint Utilities, the Commission's regulatory role of overseeing the state's energy efficiency programs would continue in its current form. The Commission would determine if the final plans submitted by the Joint Utilities are in the public interest, including the program budgets and program cost effectiveness. In addition, the Commission would continue to oversee ongoing reporting and implementation and results of the programs.

The Joint Utilities propose that each utility, except NHEC, file its own request for recovery of EERS-related lost revenues, which will vary by utility each year and that the Commission adjudicate the requests individually. According to the Joint Utilities, the LBR Adjustment process would be separate from the three-year planning process used to set savings targets and to establish specific programs to meet those goals.

3. The Way Home

TWH recommended regular review of the efficiency programs during the three-year EERS planning periods, perhaps quarterly as is currently done for the Core programs. TWH also recommended an annual planning process.

4. Settlement Agreement

The Settling Parties recommend that they work collaboratively to refine a draft plan for the first triennium of the EERS, which will be filed for Commission review and approval by September 1, 2017. An independent consultant would be hired by the Commission, with a budget not to exceed \$95,000 annually, to assist in the development of the initial and subsequent EERS plans. The consultant would serve as a resource to the EESE Board and other stakeholders as requested and deemed appropriate by the Commission.

The Settlement Agreement requires the filing of annual updates during the three-year EERS plan periods, for Commission review and approval. The review process would be akin to the process currently used to review mid-period submissions in the Core dockets. Such annual update filings will serve as an opportunity to adjust programs and targets and address any other issues that may arise from changes or advancements, including evaluation results, state energy code changes, and federal standard improvements.

The Settlement Agreement and the Joint Utilities' proposal provide specific detail about the processes to be followed with regard to lost revenue recovery, including the annual setting of a rate for the next year and the reconciliation of the prior year's rate and revenue recovery. The Settlement Agreement also requires actual savings and costs to be audited by an independent third party.

J. Implementation Date

1. Staff

Staff recommended an EERS implementation date of January 1, 2017.

2. Joint Utilities

The Joint Utilities recommended that the EERS be implemented beginning January 1, 2018. According to the Joint Utilities, adequate time is needed for thorough program development and a more comprehensive stakeholder review process than is typically used for the Core programs. Under their proposal, the Joint Utilities would present a draft three-year plan to the EESE Board on April 1, 2017, and allow two months for EESE Board's review. Then, the Joint Utilities would file the final plan with the Commission by September 30, 2017, for approval by December 31, 2017. Also before implementation of the EERS, the Commission would determine the SBC and LDAC funding rates.

In the meantime, the Joint Utilities proposed to file, on or before September 30, 2016, an interim, one-year Core plan for 2017. Also by that date, the Joint Utilities would file testimony regarding the implementation of their LBR Adjustment.

3. Sustainable Energy Group

The Sustainable Energy Group did not specifically recommend an implementation date. In discussing savings targets, however, the Group referred to the first three-year period of the EERS as 2017-2019.

4. Settlement Agreement

The Settlement Agreement proposes the implementation of an EERS beginning January 1, 2018. During 2017, the Core programs will continue, and the Settling Parties, in collaboration with the EESE Board, will prepare for EERS implementation.

K. Beyond Implementation

1. Staff

Staff described energy efficiency programs and products that are available in other jurisdictions, but not New Hampshire. Staff suggested that some or all of those offerings could be used to enhance an EERS. According to Staff, the Joint Utilities could use the integrated resource planning process to identify new opportunities for energy efficiency. In addition, demand-side management and grid modernization tie well with energy efficiency programs.

2. Joint Utilities

The Joint Utilities described their vision for the future of the EERS and provided examples of expanded program services, new initiatives, and innovative implementation strategies. The examples included piloting emerging technologies, offering incentives for combined heat and power projects, and incorporating the use of midstream and upstream program delivery models, which allow for energy efficiency equipment incentives at the retailer and manufacturer level.

The Joint Utilities also discussed potential sources of funding for the EERS other than the SBC and LDAC, including the Commercial Property Assessed Clean Energy (C-PACE) program. According to the Utilities, C-PACE falls under third-party financing, specifically for commercial buildings, and allows building owners to finance cash-positive energy efficiency and renewable energy projects, tying the financing to the property through a voluntary, municipal special assessment/lien. The Joint Utilities argued that C-PACE could work in combination with the programs under an EERS.

3. Sustainable Energy Group

To ensure that the benefits of peak demand reduction are realized for all ratepayers, the Sustainable Energy Group recommended that the Commission consider establishing cost-effective peak shaving demand reduction programs.

4. TRC

TRC recommended that the EERS broaden the customer base that is reached by the existing efficiency programs and provide the opportunity for all contributors to program funding to receive program benefits. TRC recommended that the EERS include hybrid programs that effectively address both electricity and fuel savings, because they introduce building owners to deeper energy savings projects.

5. OCA

The OCA recommended that all residential ratepayers participate in a single, statewide customer engagement technology platform (CETP) akin to the platform being developed by Eversource and partially funded through the Core budget. According to the OCA, a CETP is a web-based, data-diagnostic tool that utilities can use in many ways including to educate customers about energy efficiency, target marketing efforts, institute customer behavioral

programs, and offer customers online self-service options. The OCA contended that the outcome of using a CETP statewide would be uniform delivery and reduced costs of efficiency services; broader customer participation in efficiency; and greater energy savings for all customers. In addition, a CETP will be needed in the future should the Commission implement programs such as net metering and time-of-use pricing.

6. The Way Home

TWH recommended that the Commission consider quantifying, for the purpose of the cost/benefit test used for efficiency programs, additional non-energy benefits or societal benefits derived from low-income efficiency programs, which are not currently accounted for under that test. According to TWH, a 2008 New Zealand study confirmed benefits such as reduced hospitalizations, and lost days of work and school, and the states of Vermont and Ohio use adders in their cost-benefit tests to quantify non-energy benefits including greater comfort, improved health, enhanced productivity, and other societal benefits.

IV. COMMISSION ANALYSIS

A. Legal Authority

RSA 4-E:1 became effective on July 24, 2013, and spurred the opening of this docket. That statute required the Governor's Office of Energy and Planning (OEP) to prepare a 10-year energy strategy for the State. RSA 4-E:1. The Legislature required the state energy strategy to include "consideration of the extent to which demand-side measures including efficiency ... can cost-effectively meet the state's energy needs, and proposals to increase the use of such demand resources to reduce energy costs and increase economic benefits to the state." RSA 4-E:1, II. As detailed in Section I above, OEP prepared the 2014 New Hampshire State Energy Strategy in response to that legislative mandate. The Energy Strategy final report recommended that the

Commission open a proceeding to establish “energy efficiency savings goals based on the efficiency potential of the State, aimed at achieving all cost-effective efficiency over a reasonable time frame.” 2014 New Hampshire State Energy Strategy, Executive Summary at ii.

Although RSA 4-E:1 and the 2014 New Hampshire State Energy Strategy served as catalysts for this docket, the Commission has a long history of regulating the demand-side measures of the State’s electric and gas utilities. The Commission has historically regulated demand-side measures, including energy efficiency programs, pursuant to its general authority under RSA 374:3 (general supervision of all public utilities) and RSA Chapter 378 (rates and charges). In 1988, pursuant to both its general authority and its authority under the New Hampshire Limited Electric Energy Producers Act, RSA Chapter 362-A, the Commission required that electric utilities engage in least cost integrated resource planning (LCIRP). In *Public Service Company of New Hampshire, et al.*, 73 NH PUC 117 (1988), the Commission required electric utilities to “file an integrated least cost resource plan in conjunction with an updated forecast of avoided costs in order that the commission may reasonably review each utility’s planning process, resultant plans, and avoided cost forecast.” *Id.* at 126.

Shortly thereafter in 1990, the Legislature enacted the LCIRP statute, RSA 378:37-39, and declared least cost integrated resource planning for electric utilities to be the energy policy of the state. As originally enacted, RSA 378:37 provided that:

The general court declares that it shall be the energy policy of this state to meet the energy needs of the citizens and businesses of the state at the lowest reasonable cost while providing for the reliability and diversity of energy sources; the protection of the safety and health of the citizens, the physical environment of the state, and the future supplies of nonrenewable resources; and consideration of the financial stability of the state’s utilities.

RSA 378:37 (West 2009).

Although the LCIRP statute has always required our review of utility demand-side programs, including energy efficiency, the Legislature amended the LCIRP statute in 2014 to place a greater emphasis on evaluation of energy efficiency programs. *See* Laws of 2014 ch. 129; *compare* RSA 378:38, II (West 2009) *with* :38, II (West Supp. 2015). In the 2014 amendment, the Legislature declared it the energy policy of the state “to maximize the use of cost effective energy efficiency and other demand side resources.” RSA 378:37 (West Supp. 2015). The 2014 amendment increased the emphasis on energy efficiency programs by providing that the Commission’s evaluation of utility plans should be guided by certain energy policy priorities, energy efficiency being first and foremost among them. RSA 378:39 (West Supp. 2015).

In addition, the electric restructuring policy principles, enacted in 1996, guide the Commission in the exercise of its general authority over electric utilities. *See* RSA 374-F:3, X (restructured electric market required to “reduce market barriers to investments in energy efficiency and provide incentives for appropriate demand-side management and not reduce cost-effective customer conservation” and “utility sponsored energy efficiency programs should target cost-effective opportunities that may otherwise be lost due to market barriers”); RSA 374-F:4, VIII(e) (Commission authorized to approve a utility’s inclusion in its distribution charge of the costs of energy efficiency “that are part of a strategy to minimize distribution costs”). Specifically, RSA 374-F:3, VI authorized the creation of a “nonbypassable and competitively neutral system benefits charge applied to the use of the distribution system” for the support of, among other things, energy efficiency programs.

The Commission has reviewed gas utility demand-side measures pursuant to its general authority since at least 1992. *See, e.g., EnergyNorth Natural Gas, Inc., 77 NH PUC 802 (1992);*

Northern Utilities, Inc., 77 NH PUC 803 (1992); *see also Northern Utilities, Inc.*, 78 NH PUC 310 (1993) (approving pilot DSM program); *EnergyNorth Natural Gas, Inc.*, 79 NH PUC 605 (1994) (same); *EnergyNorth Natural Gas, Inc. et al.*, Order No. 24,109 at 1 (December 31, 2002) (approving gas utility energy efficiency programs following gas industry restructuring). The 2014 amendment to the LCIRP statute has since made that statute's energy efficiency requirements applicable to gas utilities. *See* RSA 378:38.

While nothing prohibits electric utilities from funding energy efficiency programs through their distribution rates as approved by the Commission under its general rate making authority, *see* RSA 374-F:4, VIII(e), electric utilities fund energy efficiency measures primarily through the SBC, pursuant to the Commission's authority under RSA 374-F:3, VI. Gas utilities continue to fund energy efficiency programs primarily through the LDAC as approved by the Commission pursuant to the Commission's general supervisory and rate making authority. *See EnergyNorth Natural Gas, Inc., and Northern Utilities, Inc.*, Order No. 24,109, at 9 (December 31, 2002). In addition, limited proceeds from the RGGI, pursuant to RSA 125-O:23, and the ISO-NE Forward Capacity Market, are used to fund energy efficiency. In recent years, the Commission has approved the use of third-party private financing options to fund energy efficiency measures. *See* Order No. 25,747 at 9 (describing third-party financing proposals approved by the order).

Electric and gas utility programs are currently reviewed jointly as part of the Core Energy Efficiency Program. *See Electric and Gas Utilities*, Order No. 25,747 (December 31, 2014) (approving 2015-2016 Core programs); *Electric and Gas Utilities*, Order No. 25,462 (February 1, 2013) (approving 2013-2014 Core programs); *Electric and Gas Utilities*, Order No. 25,189 (December 30, 2010) (approving the 2011-2012 Core programs and listing, at

page 21, the Commission's energy efficiency orders from 2001 through 2009). As detailed in Section I, above, however, several studies have concluded that additional opportunities for cost-effective energy efficiency exist beyond those attained through the Core program. Accordingly, we opened this docket to consider ways to transition from the Core program to an EERS. The Commission's general supervisory and ratemaking authority, historic energy efficiency program management, and legislative policy pronouncements, provide an adequate legal framework for the creation and financing of the next generation of energy efficiency measures.

B. Settlement Agreement

Pursuant to RSA 541-A:31, V(a), informal disposition may be made of a contested case at any time prior to the entry of a final decision or order, by stipulation, agreed settlement, consent order, or default. We encourage parties to settle issues through negotiation and compromise because it is an opportunity for creative problem solving, allows the parties to reach a result in line with their expectations, and is often a better alternative to litigation. *Granite State Electric Co.*, Order No. 23,966 at 10 (May 8, 2002); *see* RSA 541-A:31, V(a) ("informal disposition may be made of any contested case ... by stipulation [or] agreed settlement"). Even when all parties join a settlement, however, we must independently determine that the result comports with "applicable standards." *EnergyNorth Natural Gas, Inc. d/b/a National Grid NH*, Order No. 24,972 at 48 (May 29, 2009). We analyze settlements to ensure that a just and reasonable result has been reached. *Id.*; *see* N.H. Code Admin. Rules Puc 203.20(b) ("The commission shall approve a disposition of any contested case by stipulation [or] settlement ... if it determines that the result is just and reasonable and serves the public interest.").

Based on the record, the terms of the Settlement Agreement appear to be consistent with applicable law, because they will reduce market barriers to investment in cost-effective energy

efficiency investment, provide incentives for appropriate demand-side management, and not reduce cost-effective consumer conservation. *See Electric Utility Restructuring*, Order No. 23,574 (Nov. 1, 2000) at 10 (citing the requirements of RSA 374-F:3, X).

The record supports a finding that cost-effective energy efficiency is a lower cost resource than other energy supply.¹⁰ In addition, over the past 14 years the Commission has used a cost effectiveness, or cost benefit, test for energy efficiency measures in the Core energy efficiency programs. The cost benefit test calculates the cost of acquiring and installing an energy efficiency measure, spread over the expected useful life of the measure, and compares that cost to the cost of the energy saved, or the energy supply avoided, over the expected useful life of the measure. Using the cost benefit test in the Core programs, the Commission has approved numerous Core energy efficiency measures where the cost of the measure is less than the cost of the avoided energy supply.

For avoided costs of supply, we rely on the *Avoided Energy Supply Costs in New England: 2015 Study* (March 27, 2015, revised April 3, 2015) prepared by TCR Group for the Avoided Energy Supply Component (AESC) Study Group (AESC 2015 study) and used in the Core programs to evaluate cost effectiveness.¹¹ The AESC 2015 study indicates that direct avoided retail electric costs are approximately \$0.11 per kWh on a 15-year levelized basis. *See 2016 New Hampshire Statewide Core Energy Efficiency Plan*, Docket No. DE 14-216, Hearing Exhibit 5 at 20 (December 15, 2015). For the costs of energy efficiency, we use both the utilities' and the customers' costs. The Joint Utilities calculated the utilities' costs of energy efficiency to be \$0.030 per kWh saved over the life of the measure. *See* Exh. 3 Joint Utilities at

¹⁰ *See* Exh. 2 Sustainable Energy Group at 5 and Attachment 1; Exh. 3 Joint Utilities at 32; and Exh. 5 Acadia Center at 1.

¹¹ The Commission takes administrative notice of this analytical tool used in the Core Docket, DE 14-216 pursuant to Puc 203.27 (a)(2) (notice of relevant portion of the record in other proceedings).

32. The customer costs are currently estimated in the Core programs as \$0.02 per kWh saved over the life of the measure.¹² Based on the experience with the Core programs, even with the customer costs added to the utilities' costs of energy efficiency, the total costs of energy efficiency are less than the costs of supply. *See id.* at 22, 30, 35 and 40.

As discussed above, the Commission has consistently imposed a cost-effectiveness test before including energy efficiency measures in the Core Programs. Cost effectiveness is a statutory requirement for least cost planning. We will continue to require that all measures used to achieve an EERS meet cost-effectiveness tests. By ensuring that EERS measures are cost effective, we remain consistent with the Legislature's mandate that the Commission prioritize energy efficiency and demand-side supply resources in order to provide the lowest reasonable cost energy supply to customers, RSA 378:37 and :39, and with New Hampshire's Energy Policy, as well as the requirement to set just and reasonable rates, RSA 378:7.

The parties asserted that energy efficiency has a multitude of customer benefits, including lower utility bills now and in the future, improvements in comfort, health, and safety, more customer control and understanding of energy use, increased reliability of the grid and avoidance of new generation capacity, and job creation and reduced pollution. *See* Exh. 5 Acadia Center at 1; Exh. 2 Sustainable Energy Group, Attachment at 1; Exh. 3 Joint Utilities at 38 and 46; Exh. 4 Staff at 14; Exh. 8 Sustainable Energy Group at 8; and Exh. 11 The Way Home at 9. While those benefits have not yet been quantified by the Commission for New Hampshire, we will monitor the cost effectiveness of the energy efficiency measures installed under the EERS and will review the results of the EERS over time to determine its effect on customers.

¹² The estimated customer costs include kilowatt-hour savings for electric programs, and MMBtu savings – converted to kilowatt-hour-equivalent savings – for gas programs.

In addition to the cost effectiveness of the EERS measures, we must consider the impact on customers of funding the EERS through the SBC and LDAC. The Settlement quantifies the increases to the SBC for each electric utility. It also estimates the corresponding bill impacts for average users. The bill impact calculations do not take into account customer savings due to energy efficiency programs. The SBC and bill impact estimates are as follows.

- The SBC for Eversource will increase from the current rate per kWh of \$0.00330 to \$0.00383 in 2017, \$0.00488 in 2018, \$0.00631 in 2019, and \$0.00850 in 2020. Exh. 1 at 22. The impact of those increases on an average residential customer using 625 kWh per month¹³ will be \$0.33 in 2017, \$0.65 in 2018, \$0.90 in 2019, and \$1.37 in 2020. *Id.* The impact of those increases on an average General Service customer using 10,000 kWh per month will be \$5.34 in 2017, \$10.41 in 2018, \$14.34 in 2019, and \$21.88 in 2020. *Id.*
- The SBC for Liberty electric customers will increase from \$0.00330 to \$0.00381 in 2017, \$0.00480 in 2018, \$0.00615 in 2019, and \$0.00825 in 2020. Exh. 1 at 23. The impact of those increases on an average residential customer using 625 kWh per month will be \$0.32 in 2017, \$0.61 in 2018, \$0.85 in 2019, and \$1.31 in 2020.¹⁴ *Id.* The impact of those increases on an average Liberty General Service customer using 10,000 kWh per month will be \$5.13 in 2017, \$9.83 in 2018, \$13.58 in 2019, and \$20.94 in 2020. *Id.*
- The SBC for UES will increase from \$0.00330 to \$0.00384 in 2017, \$0.00486 in 2018, \$0.00626 in 2019, and \$0.00841 in 2020. Exh. 1 at 24. The impact of those increases on an average residential customer using 625 kWh per month will be \$0.34 in 2017, \$0.64 in

¹³ We recognize that the Settlement calculates bill impacts using 625 kWh per month for Residential customer usage and 10,000 kWh per month for General Service customer usage, and the Staff used different average usage to calculate the bill impacts in their proposal. Staff used 700 kWh per month for residential usage and 7,000 for commercial/industrial usage. See Exh. 4 Staff at 45-46. We note that the Joint Utilities used the same usage that we use in this order to calculate bill impacts. See Exh. 3 Joint Utilities Attachment 1, at 70.

¹⁴ Settlement Electric Attachment A, revised page 7 of 10 (Bates page 23), *also* Liberty's response to Record Request 1 (July 27, 2016).

2018, \$0.88 in 2019, and \$1.34 in 2020. *Id.* The impact of those increases on an average UES General Service customer using 10,000 kWh per month will be \$5.41 in 2017, \$10.17 in 2018, \$14.01 in 2019, and \$21.51 in 2020. *Id.*

- The SBC for NHEC will increase slightly less than the SBC increases for the other electric utilities, because NHEC will not recover lost revenues. Specifically, NHEC's SBC will increase from \$0.00330 to \$0.00376 in 2017, \$0.00459 in 2018, \$0.00575 in 2019, and \$0.00759 in 2020. Exh. 1 at 25. The impact of those increases on an average residential customer using 625 kWh per month will be \$0.29 in 2017, \$0.52 in 2018, \$0.72 in 2019, and \$1.15 in 2020. *Id.* The impact of those increases on an average NHEC General Service customer using 10,000 kWh per month will be \$4.60 in 2017, \$8.30 in 2018, \$11.60 in 2019, and \$18.40 in 2020. *Id.*

The Settlement also quantifies the increases to the LDAC by utility as follows.

- The LDAC for Liberty gas will increase from \$0.0585 to \$0.0643 in 2017, \$0.0724 in 2018, \$0.0817 in 2019, and \$0.0907 in 2020. Exh. 1 at 27. The monthly impact of those increases on an average residential customer using 783 therms per month will be \$0.38 for 2017, \$0.53 for 2018, \$0.60 for 2019, and \$0.59 for 2020. *Id.* For an average Commercial and Industrial customer using 8,773 therms, the monthly impact will be \$2.22 for 2017, \$2.98 for 2018, \$3.42 for 2019, and \$3.30 for 2020. *Id.*
- The LDAC for Northern will increase from \$0.0297 to \$0.0347 in 2017, \$0.0405 in 2018, \$0.0466 in 2019, and \$0.0576 in 2020. *Id.* The monthly impact of those increases on an average residential customer using 783 therms per month will be \$0.33 for 2017, \$0.38 for 2018, \$0.40 for 2019, and \$0.72 for 2020. *Id.* For an average Commercial and

Industrial customer using 8,773 therms, the monthly impact will be \$0.96 for 2017, \$1.13 for 2018, \$1.18 for 2019, and \$2.12 for 2020. *Id.*

In approving the EERS as proposed, we are mindful of and do not take lightly the short-term increases in customer rates. When considered in the context of the benefits of increased energy efficiency, participating electric and gas customers will spend less on energy usage and, in the long run, all customers will spend less on energy supply. As suggested by the parties, other benefits could result from increased energy efficiency, but our decision does not rest on that possibility. Instead, our approval of the Settlement Agreement's rate increases is based on a record developed over the course of a year following a year-long investigation by the Staff of EERS potential, both of which were contributed to by numerous experienced and knowledgeable stakeholders and experts. Also, we note in making our decision, the support of the Settlement Agreement by the diverse parties, including the Consumer Advocate, The Way Home, and others. The record and support by parties with diverse interests, along with the customer-protection measures built into the EERS framework, as described below, give us confidence that any short-term rate impacts will be outweighed by the benefits to customers, the grid, and the New Hampshire economy. In addition, we note that our approval of the Settlement Agreement is only the beginning of the EERS; the Commission will oversee the development of the specific EERS programs and their subsequent implementation to ensure that the energy efficiency programs funded by customers are indeed the least-cost resource available to the Joint Utilities' customers.

1. Program Administration

The Joint Utilities have direct relationships with their customers, who may need help and support in making efficiency investment decisions, and the Joint Utilities have direct access to

customer consumption data and technical resources in New Hampshire and neighboring jurisdictions. In addition, the Joint Utilities have demonstrated a commitment to energy efficiency and have a history of award-winning management and delivery of the Core programs. They also have infrastructure and market-participant relationships in place to quickly scale up programs to meet increased savings goals. Consequently, at least for the first triennium, the Joint Utilities are a logical choice for the role of administrator within an EERS framework.

2. Savings Targets and Planning Periods

In the last decade, several New Hampshire specific studies have identified energy efficiency savings potential. Although those studies are somewhat dated,¹⁵ based on the record, we find that they provide a reasonable sense of the achievable, cost-effective efficiency savings potential in New Hampshire, for the purpose of approving the EERS framework. *See* Exh. 4 Staff at 15; and Exh. 8 Sustainable Energy Group at 15-16. The short-term savings goals recommended by the Settlement Agreement are reasonably consistent with those studies and also fall within the range of savings recommended by the various parties in this proceeding, who represented diverse interests. In addition, setting a long-term qualitative goal of ultimately achieving all cost-effective efficiency savings as recommended by the Settlement Agreement follows the recommendations of the New Hampshire specific studies and allows flexibility to set that goal in the context of the market conditions that develop over time within the EERS structure.

Consequently, we approve the proposed EERS savings goals for the first triennium of the EERS as a percentage of 2014 statewide delivered sales: 0.80% for electric and 0.70% for gas in 2018; an additional 1.0% for electric and 0.75% for gas in 2019; and an additional 1.3% for electric and 0.80% for gas in 2020. Those statewide savings goals are cumulative and are

¹⁵ GDS Report (January 2009) and the VEIC Report (November 2013)

intended to reach overall savings of 3.1% of electric sales and 2.25% of gas sales, relative to the baseline year of 2014, by the end of 2020. We also approve the recommendation to continue the Core programs in 2017, with adjustments to funding and savings goals as provided in the Settlement Agreement, in order to allow adequate time for careful and thoughtful planning for implementation of the first EERS triennium. Specifically, the 2017 Core-extension savings goals shall be 0.60% of 2014 statewide delivered sales for electric and 0.66% of 2014 statewide delivered sales for gas.

We agree with and approve the Settling Parties' recommendation to use three-year planning periods instead of the two-year periods used in Core. Three years is long enough to afford more stability and continuity in program delivery, which will help customers and other stakeholders plan their efficiency investments, but not so long as to limit the Commission's flexibility to adjust savings targets in response to changes in market conditions or other developments during that time. Also, using three-year periods aligns the EERS with industry practice and is consistent with the planning periods used previously for the gas efficiency programs. *See, e.g., Northern Utilities, Inc.*, Order No. 24,630 at 7 (June 8, 2006) (order approving a three-year plan refers to the prior three year program cycle).

3. Costs and Funding

The proposed costs of achieving the short-term goals recommended by the Settlement Agreement appear to be just and reasonable as well as consistent with the recent legislative mandate to consider energy efficiency a first-priority supply resource. We take note of the Settling Parties' proposal to increase the low-income program budget. At a time of uncertainty about the future of energy supply in the New England region and consistent with legislative directive in RSA 374-F:3, V (Commission shall "enable residential customers with low incomes

to manage and afford essential electricity requirements”), we find this proposal to be appropriate. Moreover, increasing low-income efficiency funding and activities should free up some of the low-income financial assistance also collected through the SBC and LDAC, because those customers’ energy consumption will decrease.

While rates may increase slightly for all customers in the short-term in order to recover the costs of an EERS, customer bills will decrease when their energy consumption decreases as well as when the impact of consumption decreases are reflected in reduced grid and power procurement costs. *See, e.g.,* Exh. 2, Sustainable Energy Group Attachment at 2 and at 3-4. While the cost benefit tests ensure benefits to all customers, it is true that those who participate in efficiency programs are likely to benefit most. They will receive immediate benefits from bill reductions, improved comfort, and higher home or business value. Those advantages are in addition to the utility system benefits enjoyed by all customers. In return, however, customer participants must invest time and take full advantage of financial incentives or technical assistance, and they often must pay additional out-of-pocket expenses. Non-participating customers enjoy the benefits from load and system improvements. *See Granite State Electric Company*, Order No. 20,362, 76 NH PUC 820, 823 (1991). In addition, the efficiency programs will reduce emissions and may reduce utility revenue requirements through reduced operation and maintenance (O&M) expenses. Further, the availability of the direct benefits from participation, coupled with broad-based programs, should send a signal to all customers and encourage broad participation in the programs.

The record supports our finding that the EERS, and the energy efficiency market needed to support it, requires stable funding to grow and function optimally. *See* Exh. 3 Joint Utilities Petition at 48; and Exh. 2, Sustainable Energy Group Attachment at 2. The SBC and the LDAC

are stable sources of revenue, and using ratepayer funds to achieve the public benefits of cost-effective energy efficiency is just and reasonable. Although the total funding collected under the RGGI program could cover a good portion of the incremental costs associated with EERS' increased savings goals, at this time, access to those funds for energy efficiency is limited by statute. *See* RSA 125-O:23.

Also at this time, private funding is limited and not as stable and reliable as the SBC and LDAC, and private funding alternatives have not been adequately investigated. *See* Exh. 3 Joint Utilities Petition at 6, 48, and 51-52; and Sustainable Energy Group Exh. 2, Attachment at 11-12; Exh. 5 Acadia Center at 7; and Transcript at 83-84 *see also* 2015-2016 Core Plan (DE 14-216) (includes a few new and relatively-new private financing programs). As seen in other jurisdictions, private funding increases following increased public funding of an EERS.¹⁶ We note the Settling Parties' commitment to continue the work started in the Core programs to nurture and expand private funding options. Private funding should continue to be used to the greatest extent possible to fund the EERS programs. We will look to the plan for the first EERS triennium to describe those efforts and any new private funding proposed or under consideration for the future.

The SBC was established by the Legislature as part of electric restructuring. *See* RSA 374-F:4, VIII. The Commission has not increased the SBC since the inception of the Core programs in 2001. *Id.* Failing to increase the funding to support higher savings goals at this time not only fails to provide the Joint Utilities' customers with viable and proven options for energy

¹⁶ Exh. 2 Sustainable Energy Group at 11 "Studies of financing programs have concluded that combining financing with traditional rebates and incentives leverages deeper savings and broader participation" (citations omitted), Exh. 4 Staff at 86. "In some markets program administrators have begun to tap secondary markets and a number of transactions have taken place representing a total volume of \$400 million" and at 89 "Observers believe that when these conditions are met, lower cost capital may become available which will result in lower interest rates for customers.")

at least cost, but also fails to capture other benefits for customers. The Commission's oversight, and the requirement that all programs meet a cost-effectiveness test that projects greater benefits than costs over the life of the measures, ensures that the programs and spending of ratepayer funds are just, reasonable, and least cost. Therefore, we approve the proposal to fund the EERS through increases to the SBC and LDAC as proposed in the Settlement Agreement. We note that, when the three-year EERS plans are filed, we will review in advance and approve that spending only to the extent that it is just, reasonable, and least cost.

4. Recovery of Lost Revenues

With increased energy savings comes decreased utility revenues due to standard rate design, which recovers costs through a variable, or consumption-based, rate. The lost revenue adjustment mechanism (LRAM) recommended by the Settlement Agreement enables the Joint Utilities (except NHEC) to recover the portion of their authorized revenue requirement lost due to energy efficiency activities. The LRAM is not designed to increase the revenues recovered by the utilities, and lost revenues are not considered a cost for the purpose of the cost/benefit test used to assess efficiency programs in the Core or within the EERS. Specifically, without the LRAM, or a change in the way rates are designed today, the utilities may lose revenue that the Commission has already determined in the utility's rate case is just and reasonable for them to recover. Consequently, we approve the LRAM as proposed.

Nonetheless, we are mindful that, with an LRAM, the utilities' revenues can increase above their authorized revenue requirements from increased sales, and, for that reason and others, some parties prefer decoupling. This is because decoupling provides a reconciliation to the last-approved revenue requirement (*i.e.*, in the case of a utility collecting more revenue than its last-approved revenue requirement, the utility would be required to prospectively credit

customers for any such over-collection). We note that our approval of the LRAM does not limit our subsequent consideration and approval at any time of a different lost revenue recovery mechanism, and that the Joint Utilities (except NHEC) are required to seek approval of a decoupling or other lost-revenue recovery mechanism as an alternate to the LRAM in their first distribution rate cases after the first EERS triennium, if not before.

5. Performance Incentives

The Commission has used performance incentives successfully in the Core programs to encourage utility investment in energy efficiency. In light of the addition of an LRAM, we agree with the Settling Parties' recommendation to reduce the level of performance incentives available to the Joint Utilities under an EERS. The recommended levels are sufficient to provide a reasonable incentive to pursue exemplary performance in program administration and delivery and to put efficiency investment on an equal footing with other earnings opportunities available to the Joint Utilities.

In addition, the recommended performance incentive level is less likely to provide excessive earnings and is more commensurate with the lower risk of investing in efficiency.

6. Stakeholder Involvement

Involving energy service stakeholders in the development and implementation of the EERS is important, because they are directly connected to the provision of energy and efficiency services. The active participation in the EERS of Settling Parties, who include representatives of the Joint Utilities, Commission Staff, DES, consumer advocates like the OCA and NHLA, efficiency experts and service providers, brings different knowledge, experience, and perspectives. New Hampshire is fortunate to have so many stakeholders who are invested in the success of energy efficiency and the EERS; their contributions and collaboration in this

proceeding produced a more robust result. As economy wide involvement in energy efficiency measures will yield the best results, we encourage fuller participation of the New Hampshire business community going forward.

We appreciate the Joint Utilities' access to counterparts and expertise in other jurisdictions that lead the nation in the provision of energy efficiency services and encourage further interactions. To enable the well-informed contribution of the non-utility stakeholders in work required in the future to assure success of the framework we establish today, we approve the Settling Parties recommendations related to the retaining and funding of a planning consultant, an EM&V oversight consultant, and the EM&V studies consultants.

The EESE Board is a collection of diverse energy stakeholders, and its involvement in the EERS planning and implementation, as recommended by the Settling Parties, is appropriate. To fulfill that advisory role, the EESE Board requires technical resources consistent with the Settlement.

7. Evaluation, Measurement and Verification

We approve the EM&V proposals contained within the Settlement Agreement. Rigorous and transparent EM&V is essential to a successful EERS, to ensure that the efficiency programs actually achieve planned savings in a cost-effective manner. The addition of the EESE Board and additional expert resources to the EM&V proposed for the EERS will protect customers through consistent and fair assessment of program performance and cost effectiveness. Moreover, a Technical Resource Manual that meets New Hampshire needs, as proposed by the Settlement, will enable EM&V transparency, consistency, and accuracy.

8. Regulatory Process

We approve the Settling Parties' recommendations for an EERS process, including the pre-filing collaborative preparation of a plan for the first triennium with the assistance of a planning expert. We agree that such a process will likely result in a more efficient and less adversarial adjudicative proceeding following the plan's filing for Commission review and approval. An abbreviated annual plan update process during the trienniums, like the process we currently use for the Core dockets, is appropriate and will enable the stakeholders some flexibility to respond to developments in the energy efficiency market during that time.

In addition, we approve the annual process proposed for setting and reconciling the LRAM as described in the Settlement Agreement and the Joint Utilities EERS proposal. In calculating lost revenue, savings shall be adjusted to account for retirements, the actual timing of efficiency-measure installation, and the results of EM&V studies. Total lost revenues shall be capped at 110 percent of planned annual savings, audited by an independent third party, and recovered through an adjustment to the SBC or LDAC, depending on the utility.

9. Implementation Date

We approve the Settling Parties' recommendation to begin implementation of the EERS on January 1, 2018.¹⁷ We recognize the Settling Parties' significant investment of time and resources during the last two years to reach this point in the development of an EERS framework, and we appreciate their willingness to continue their work to carefully and thoughtfully prepare a specific and detailed plan within that structure.

¹⁷ An implementation date of January 1, 2018 for an EERS complies with the Legislative directive in HB 2 that, "[f]or the biennium ending June 30, 2017, the public utilities commission shall not expend any funding on the implementation of an energy efficiency resource standard without prior approval of the fiscal committee of the general court." N.H. Laws of 2015 ch. 276:223..

10. Beyond Implementation

We appreciate the foresight of the various parties who offered recommendations for the future of the EERS. Nonetheless, we defer any judgment on the merits until such time as specific proposals are presented for our review and approval.

Although not covered in the Settlement Agreement, Integrated Resource Plans are a critical component to the success of an EERS. IRPs are planning studies produced by electric and gas utilities to determine resource needs over a given planning period. The planning period is generally between 10 and 20 years. Methodologies used in the studies vary, but are intended to produce the least-cost, least-risk resource balance. Typically, the utility performs a number of studies as part of an IRP including a customer energy and peak demand forecast. To plan for achieving the EERS savings goals and confirm that its efficiency programs are least cost, the IRP should also include an energy efficiency market potential study and should model the inclusion of energy efficiency on a similar basis to supply-side resources or market purchases. Within six months of this order, Staff and the utilities shall meet to discuss and refine the IRP requirements.

V. CONCLUSION

Our establishment today of Energy Efficiency Resource Standards for electricity and gas is both routine and remarkable. It is routine, as we have long required our utilities to help their customers save money by using less electricity and gas. The State's 10-year energy strategy, developed under RSA 4-E:1 and crafted with the input of consumer groups, environmental advocacy organizations, utilities, and others, also calls for increased energy efficiency throughout all sectors of the economy. The Core energy efficiency programs have given the utilities 14 years of experience with developing and implementing cost-effective programs and the EERS will build on that foundation.

At the same time, the establishment of an EERS is remarkable as it is based on the setting of savings targets, not dollars spent. It is the product of extensive investigation by Staff and collaboration between and among diverse groups of stakeholders. The framework that they developed together and that we approve in this Order will move the State forward, toward specific annual savings goals to achieve objectives set out in the 10-year State Energy Strategy consistent with Legislative directives.

Energy prices have been the subject of public discussion and debate for many years. The EERS is a significant step toward addressing the business community's concerns about remaining competitive in today's economy. The development of specific, cost-effective programs to implement this framework will require the robust participation of stakeholders, including those in the commercial and industrial sectors. Those who choose to participate in the energy efficiency programs that will be developed to meet the EERS targets will see reduced gas and electric bills, and all utility customers should see reduced costs for electric and gas supply in the long run.


We recognize that low income customers face greater hurdles to investment in energy efficiency than other customer. We have therefore approved increased funding for low income energy efficiency programs as recommended by the settling parties. We agree that these changes are appropriate in order to comply with legislative directives and to reduce energy consumption for those customers who need it most.

Based upon the foregoing, it is hereby

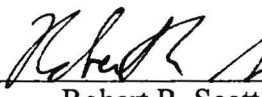
ORDERED, that the Settlement Agreement is approved; and it is

FURTHER ORDERED, that the Joint Utilities, except NHEC, shall include in their future IRPs an energy efficiency market potential study and shall model the inclusion of energy efficiency on a similar basis to supply-side resources or market purchases.

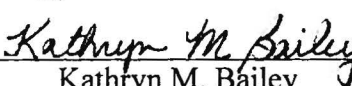
By order of the Public Utilities Commission of New Hampshire this second day of August, 2016.



Martin P. Honigberg
Chairman

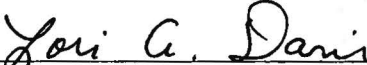


Robert R. Scott
Commissioner



Kathryn M. Bailey
Commissioner

Attested by:



Lori A. Davis
Assistant Secretary