STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

Docket No. DE 15-137

Energy Efficiency Resource Standard

Joint Pre-filed Direct Testimony of Eric M. Stanley, Carol M. Woods, Rhonda J. Bisson and Cindy L. Carroll

On Behalf of

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
New Hampshire Electric Cooperative, Inc.
Public Service Company of New Hampshire d/b/a Eversource Energy
Unitil Energy Systems, Inc.
Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Northern Utilities, Inc.

December 9, 2015

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I. Introduction of Panel

Q. Please state your names and business addresses.

A. Eric M. Stanley

My name is Eric M. Stanley and my business address is 15 Buttrick Rd, Londonderry, NH 03053.

Carol M. Woods

My name is Carol M. Woods and my business address is 579 Tenney Mountain Highway, Plymouth, NH.

Rhonda J. Bisson

My name is Rhonda J. Bisson. My business address is 73 W Brook Street, Manchester, NH 03101.

Cindy L. Carroll

My name is Cindy L. Carroll and my business address is 325 West Road, Portsmouth, NH 03801.

Q. By whom are you employed and in what capacity?

A. Eric M. Stanley

I am the Manager of Energy Efficiency & Customer Programs at Liberty Utilities Service Corp. My primary responsibilities are the planning, development and implementation of the company's electric and gas energy efficiency programs.

Carol M. Woods

I am employed by New Hampshire Electric Cooperative, (NHEC) as Energy Solutions Executive. My responsibilities include management of planning and regulatory support for the company's energy efficiency programs.

Rhonda J. Bisson

I am employed by Public Service Company of New Hampshire d/b/a Eversource Energy ("Eversource") as Manager, Regulatory, Planning & Support - Energy Efficiency and in that position I manage the regulatory and planning support of New Hampshire's energy efficiency program implementation team.

Cindy L. Carroll

I am Director of Customer Energy Solutions at Unitil Corporation ("Unitil"). My primary responsibilities are the development, implementation and advancement of Unitil's business expansion and economic development programs, energy efficiency programs and critical customer management.

Q. Please describe your business and educational backgrounds.

A. Eric M. Stanley

I received an MBA from Southern New Hampshire University in 2015 and a Bachelor's of Science degree in Business Administration from the University of New Hampshire in 2000. I possess fifteen years of experience in the utility industry

Carol M. Woods

I received an MBA from Southern New Hampshire University and my Bachelors of Science degree in Accounting from Plymouth State University. I possess more than 15 years in the utility industry.

Rhonda J. Bisson

I received a Bachelor's of Science degree in Mathematics from the University of New Hampshire in 1986 and have been employed by Eversource for 29 years in various positions.

Cindy L. Carroll

I received an MBA from Southern New Hampshire University in 1998 and my Bachelors of Arts degree in Communications from the University of New Hampshire in 1985. I possess more than twenty years' experience in the utility industry.

Q. Have you previously testified before the New Hampshire Public Utilities Commission?

A. Eric M. Stanley

Yes. I testified before this Commission on behalf of EnergyNorth Gas. in DG 13-313 regarding the company's Integrated Resource Plan, and on behalf of EnergyNorth Gas and Granite State Electric Company in DE 12-262 and in DE 14-216 regarding the CORE Energy Efficiency programs.

Carol M. Woods

Yes, I testified before the Commission on behalf of NHEC in Docket DE-04-052 regarding the Pay as You Save program.

Rhonda J. Bisson

I have previously testified before this Commission on behalf of Eversource in several dockets, the most recent of which include DE 09-186 regarding Eversource's Renewable Default Service Energy Rate and DE 10-188 regarding the Joint Electric Utility Proposal for the Use of RGGI Funds for energy efficiency programs implemented in 2012 and 2013.

Cindy L. Carroll

Although I have not testified before this Commission in person, I have submitted prefiled testimony on behalf of Northern Utilities Inc. in DG 14-154 regarding the authority to operate as a public utility in the Town of Brentwood, and on behalf of Unitil Energy Systems, Inc. in DE 09-137 regarding Unitil's investment in and rate recovery for Distributed Energy Resources. I have testified at hearings before the Massachusetts and Maine Commissions.

II. Purpose of Testimony

Q. What is the purpose of this testimony?

The purpose of this testimony is to provide a proposal for how the New Hampshire electric and gas utilities that have developed and implemented the state's NHSaves energy efficiency programs for over a decade believe an Energy Efficiency Resource Standard ("EERS") should be designed.

In 2014, the Governor's Office of Energy and Planning released a 10-year State Energy Strategy, which acknowledged 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.*[1]

On May 8, 2015 the New Hampshire Public Utilities Commission ("Commission") opened this proceeding to establish an EERS, *i.e.,* an energy efficiency policy with specific targets or goals for energy savings that utilities must meet in New Hampshire. The order of notice directs that the

> *EERS will require electric and/or natural gas utilities to achieve, within short- and long-term time frames, energy-type-specific levels of customer energy savings (efficiency goals), based on sales volumes for the baseline year of 2014. In this proceeding, the Commission will define the savings targets and address issues related to public and private funding; program cost recovery; lost-revenue recovery (e.g., decoupling); performance-based incentives and penalties; program administration; and evaluation, measurement and verification.*

The items specifically addressed in this testimony are:

- Guiding Principles

[1] 2014 New Hampshire State Energy Strategy, Executive Summary at ii.

- Program Administration
- Program Planning Period
- Stakeholder Engagement
- Savings Targets
- Funding & Program Cost Recovery
- Lost Revenue Recovery
- Performance-based Incentives & Penalties
- Evaluation, Measurement & Verification
- Implementation & Timeline

It is the utilities' understanding that this docket is not about program plan implementation; rather, it is focused on designing an EERS for New Hampshire. The implementation and details of any plan will be brought forth in a proceeding much like the current proceedings on today's utility-sponsored energy efficiency programs.

Q. Have the utilities met with other parties in this docket to discuss the aforementioned items?

A. Yes. Over the past few months, many parties met regularly in well-attended stakeholder technical sessions to discuss the issues surrounding the creation of an EERS.

The utilities made a presentation at each technical session, engaged with stakeholders, and provided their perspective and input on every issue raised in this docket. These presentations offered information describing how other states are administering their EERS programs, along with the utilities' insights and experience with these programs, and ideas of how New Hampshire may administer its own EERS. The utilities believe

that their extensive, long-term experience in and commitment to administering energy efficiency programs in New Hampshire and other New England states makes them well-suited to propose the framework of an EERS for New Hampshire via this pre-filed testimony.

Q. Please describe the utilities' commitment to energy efficiency.

A. Energy efficiency is a central mission for all of the state's utilities and is a key part of their strategy for building a modern and sustainable energy future. To demonstrate, the New Hampshire electric and natural gas utilities have collaborated to successfully manage and deliver uniform cost-effective energy efficiency programs to all New Hampshire electric customers[2] since 2002. Prior to 2002, each utility developed and administered their own energy efficiency programs separately. The utilities also have a positive track record of increasing energy efficiency in New Hampshire and in other states. Because of their experience and demonstrated success, the utilities have the infrastructure and relationships in place to scale up quickly, if desired by the Commission.

Over the years, the utilities have been assisting customers in using energy more efficiently and have demonstrated exemplary coordination between companies, which has allowed for consistent programs statewide, while enhancing and building upon the long-term relationships each company has developed with its customers. The utilities were engaged in all of the technical sessions and have a desire to work collaboratively with all stakeholders to help develop a successful EERS framework.

[2] Hereinafter, the word "customer" will be understood to mean both customers and NHEC members.

Q. Do the utilities support the creation of an EERS?

A. Yes. The utilities support the creation of an EERS, as there are significant benefits to New Hampshire utility customers by creating an EERS.

III. Guiding Principles

Q. Please describe the overarching principles that have guided the development of the energy efficiency program plans prepared by the utilities over the past thirteen years.

A. In developing the energy efficiency program plans, the utilities have historically been guided by the following overarching principles:

- Providing a portfolio of electric and natural gas programs that are available to all New Hampshire residents, businesses and municipalities;
- Integrating the electric and natural gas programs and jointly coordinating program delivery in order to provide a seamless delivery of energy efficiency services and improve the customer experience;
- Implementing cost-effective programs where the overall benefits exceed the costs.
- Establishing challenging kilowatt-hour ("kWh") and million British thermal units ("MMBtu") savings goals given available funding;
- Delivering programs with a focus on comprehensive energy savings;
- Incorporating evolving and innovative energy efficiency measures and services;
- Leveraging the private financing market in New Hampshire to increase customer investment in energy efficiency; and

- Enhancing statewide energy efficiency education and marketing to build public awareness of the benefits of energy efficiency.

Q. As part of the technical session discussions, did the parties discuss whether those overarching principles would need to be updated under an EERS?

A. Yes. The parties agreed to begin their technical session discussions on this very topic. Ultimately, the overarching principles will form the development of the specific components under an EERS. Clear overarching or guiding principles, supported by a wide stakeholder audience, are key to the successful long-term implementation of the energy efficiency programs under an EERS.

Q. Please describe the guiding principles the utilities recommend be established to guide the development of an EERS.

A. Utilizing the technical session discussions as a key source of input, the utilities recommend the following guiding principles be established to guide the energy efficiency planning process under an EERS:

- Establish electric kWh and natural gas MMBtu savings goals with an ultimate savings target of all achievable cost-effective energy efficiency over time;
- Establish electric kWh and natural gas MMBtu annual sales reduction targets over at least a three-year period based upon demonstrated savings potential and the level of energy efficiency funding available to the electric and natural gas utilities;
- Consider rate impacts on residential and commercial/industrial customers' bills when customer funding is utilized for energy efficiency programs;

- Provide a portfolio of cost-effective and comprehensive electric and natural gas programs with a secondary focus on fuel-neutral savings available to all customers served by New Hampshire electric and natural gas utilities;
- Jointly coordinate the program plans and delivery of electric and natural gas programs in order to provide a consistent and seamless customer experience;
- Incorporate and drive innovation in technology, outreach and regulation to accelerate energy efficiency gains which reduce customer costs;
- Leverage the private financing market in New Hampshire to support customer investment in energy efficiency;
- Enhance statewide public awareness of the benefits of energy efficiency and available opportunities; and
- Support and fund programs using sustainable funding sources.

Overall, the recommended guiding principles under an EERS are very similar to the historic principles that have guided the utilities over the past thirteen years. By incorporating an ultimate savings target of all achievable cost-effective energy efficiency over time and electric kWh and natural gas MMBtu annual sales reduction targets over periods of at least three-years, the long- and short-term savings target objective contemplated in the Commission's Order of Notice[3] in this docket is fulfilled.

IV. Utilities as Program Administrators

Q. Who do you believe should administer the programs under an EERS?

[3] "The EERS will require electric and/or natural gas utilities to achieve, within short- and long-term time frames, energy-type-specific levels of customer energy savings based on sales volumes….", Commission's Order of Notice dated May 8, 2015.

A. Given their history of working collaboratively to develop and implement successful energy efficiency programs over the past several years, the New Hampshire electric and natural gas utilities believe that they should administer the EERS programs.

Q. Please describe why the utilities are best suited to administer the programs under an EERS.

A. There are several key factors that demonstrate why the utilities are best suited to administer the programs under an EERS, including:

- The utilities are uniquely positioned as the most trusted energy advisors and have long-standing relationships with their customers. Utilities value this on-going relationship, and are highly motivated to provide services that customers value and to deliver an outstanding customer experience when providing services, including energy efficiency services. Several recent studies illustrate this point. A 2012 joint report from the Associated Press and the National Opinion Research Center, "Energy Issues: How the Public Understands and Acts"[4], states "local utility companies are the only source of information completely or very much trusted by the majority of the public". This conclusion was drawn from the question, "If you received information from the following about ways to save energy, how much do you trust the information they provide?" The study was comprised of a "nationally representative household survey with 1,008 adults to measure the general public's opinions about key energy issues in the United

[4] Associated Press and the National Opinion Research Center (2012, June). "Energy Issues: How the Public Understands and Acts." Retrieved from http://www.apnorc.org/PDFs/Energy/AP-NORC-Energy-Report.pdf

States." Also, an E Source[5] 2012 Midsize Business Gas and Priority Benchmark report found that midsize businesses consider their utility the most trusted resource for energy efficiency advice. The benchmark report surveyed 1,042 midsize business utility customers across 10 utilities in the U.S. In addition, a 2013 research study from E Source[6] on residential customer service that surveyed 1,000 North American residential customers found that combined electric and gas utilities, electric utilities and gas utilities are three of the top five sources that customers trust for information on ways to save energy. This result is based on the question, "How much do you trust or not trust the following sources for information about ways to save energy?"

Lastly, results from the E Source[7] 2013 Large Business Gas and Priority Benchmark study show that one of the most important decision-making factors for businesses to participate in an energy efficiency program is working with a trustworthy advisor, second only to information on payback and costs. The benchmark surveyed more than 1,000 U.S. large business customers of 18 utilities. Because the above referenced studies indicate that customers trust their utility for energy efficiency and information, it's reasonable to assume that the utilities are the most logical entities to provide energy efficiency programs.

[5] E Source (2012, December 18). "Midsize Business Gas and Priority Benchmark 2012". Retrieved from http://www.esource.com/members/BMS-BMK-GPB-Mid-2012/Benchmark_Study/MidGapandPriority
[6] E Source (2014, March 17). "Residential Utility Customer Service Survey, 2013". Retrieved from http://www.esource.com/members/UCC-MRS-2014-03-ResCustServ/Residential-Utility-Customer-Service-Survey.pdf
[7] E Source (2013, November 26). "Large Business Gas and Priority Benchmark 2013". Retrieved from http://www.esource.com/members/AMS-BMK-GPB-Lg-2013/Benchmark-Study/LgGapandPriority

- The utilities have a deep understanding of their customers' electric and natural gas usage patterns, metering and service configurations, and rate structures. When this knowledge is combined with energy efficiency product and conservation information, the impact of energy efficiency investments and process or behavior changes can be most accurately analyzed and communicated. Ensuring customers reap rewards from energy efficiency investments through lower bills is a central business objective for the utilities, as the long-term success and overall satisfaction of customers is a key driver to the long-term success of the utilities. This is a unique role other program administrators could not easily duplicate. In addition, as energy efficiency practices and technologies evolve over time, assimilation of emerging energy efficiency practices and technologies with the practices of the utilities' system planning, operations and customer service organizations are more easily accomplished by the utilities, as these core functions reside within each utility and organizational relationships are currently in place.
- The utilities have a proven track record of delivering cost-effective, award-winning energy efficiency programs and meeting energy savings targets. For more than a decade, the utilities have reliably administered programs subject to the authority and oversight of the Commission and have developed high standards of accountability, including quality assurance assessments and pre-installation, post-installation and independent inspections.
- The utilities have developed a coordinated, integrated planning effort in order to create a seamless delivery of products and services to customers to ensure all New

Hampshire residents, businesses and municipalities receive similar product and service offerings across the state, while taking into account the unique customer characteristics and demographics of each utility's service area. The utilities' significant accomplishments have been achieved through the development of solid working relationships by and among the energy efficiency teams from each utility.

- The utilities have facilitated the establishment of widespread vendor networks that assist with the delivery of programs, including retailers, builders, weatherization contractors, electrical and heating contractors, product distributors, real estate professionals, architects and engineering firms. In addition, the utilities have built trusted relationships with a myriad of trade associations, including the New Hampshire Homebuilders and Remodelers Association, the Business and Industry Association of New Hampshire, numerous local chambers, the Restaurant and Lodging Association, the New Hampshire Grocers Association. Established vendor networks and relationships with trade associations are crucial to the success of program delivery, especially in the case of expanded program savings goals as may be contemplated under an EERS.
- The utilities have the internal infrastructure that can support additional energy efficiency activity, including project expense and savings reporting systems, payment and vendor procurement processing systems, Independent System Operator – New England ("ISO-NE") forward capacity market reporting capability, and regulatory reporting.

- The utilities have successfully delivered expanded programs through multiple partnerships and grant awards. Therefore, the utilities have the experience and ability to scale up energy efficiency quickly and effectively beyond planned program budgets, if deemed appropriate by the Commission. Recent examples include:
  - Delivery of an additional $612,500 in weatherization services to New Hampshire's homeowners through an Agreement with the New Hampshire Community Development Finance Authority and the Office of Energy and Planning ("OEP");
  - By working collaboratively with OEP and the Commission's Staff on a proposal for American Recovery and Reinvestment Act ("ARRA") funds, the utilities were awarded $731,000 in ARRA funds to provide incentives for the replacement of aging fossil-fuel heating systems and successfully met the goals and objectives of the program ahead of schedule;
  - The Sustainable Energy Division of the Public Utilities Commission awarded the utilities a $7.4 million grant in 2009 to deliver energy efficiency services, and the utilities exceeded their goal for reduction in greenhouse gases by 29%; and
  - The utilities effectively delivered an additional $3.1 million in energy efficiency services in 2013 due to the receipt of additional Regional Greenhouse Gas Initiative funds in late 2012.
- The utilities leverage the programs' funding and kilowatt-hour and therm savings in order to provide even greater value to their customers. Leveraging the

programs' funding is highlighted by the long-term partnership with the New Hampshire Community Action Agencies and OEP to utilize a combination of the Department of Energy Federal Weatherization Assistance Program funding and the utilities program funding to weatherize the homes of New Hampshire's income eligible residents. This effective partnership has improved the comfort and affordability to over 14,000 of New Hampshire's low-income residents since 2002.

Leveraging the programs' electric savings is also highlighted by the electric utilities' participation in ISO-NE's forward capacity market. The four New Hampshire electric utilities are the only energy efficiency service providers in New Hampshire that participate in ISO-NE's forward capacity market. All of the value from that participation flows to customers. This activity has brought over $13 million in additional energy efficiency services to New Hampshire's residents and businesses since 2007 and is estimated to bring approximately $5 million in services over the 2015/2016 two year plan period.

- The utilities also leverage the substantial pool of knowledge, including technology specialists, built within their energy efficiency organizations in Massachusetts and Connecticut, as each state has significantly scaled up the level of energy efficiency services provided to their residents and businesses.

The American Council for an Energy-Efficient Economy's ("ACEEE") 2014 Energy Efficiency Scorecard ranked Massachusetts as the most energy efficient state in the nation, while Connecticut received a 6th place ranking. The utilities

look forward to providing similar transforming contributions to New Hampshire's energy efficiency landscape.

Q. Have the utilities delivered cost-effective programs historically?

A. The table below summarizes the most recent forecast completed by ISO-NE on the cost to save a lifetime kilowatt-hour for each of the New England states. As illustrated, all of the New England states, including New Hampshire, deliver cost-effective energy efficiency programs – attaining greater kilowatt-hour savings for every dollar spent on energy efficiency than the supply cost (15.0 cents/kWh)[8] to purchase the energy.

Cost to Save a Lifetime kWh*
(Average of 2011-2013)

State	Total Costs ($000s)	Lifetime MWh Savings	Lifetime cents/kWh
Connecticut	$ 120,955	3,055,269	4.0
Maine	$ 23,603	1,585,851	1.5
Massachussetts	$ 374,485	10,941,300	3.4
New Hampshire	$ 21,053	701,433	3.0
Rhode Island	$ 48,970	1,322,491	3.7
Vermont	$ 35,508	1,160,092	3.1

*Source: ISO New England Energy-Efficiency Forecast for 2019 to 2024, May 1, 2015, pages 19-20
http://www.iso-ne.com/static-assets/documents/2015/05/eef-report-2019-2024.pdf

Q. Please provide a high level summary of the types of energy efficiency services currently offered to customers.

A. Working with Home Energy Raters and private builders, the utilities' programs help to construct highly efficient homes that use 15-20% less energy than a standard new home. Existing high energy use homes can have insulation, air-sealing and other weatherization

[8] NH Office of Energy and Planning website, November 3, 2015 http://www.nh.gov/oep/energy/energy-nh/fuel-prices/index.htm

work performed by qualified private contractors, which will reduce homeowners' heating costs by more than 15%. Income qualified customers can receive insulation, air-sealing and other weatherization work at no cost, reducing their energy bills by more than 15% through the collaboration with the New Hampshire Office of Energy and Planning's Weatherization Assistance Program and the Community Action Agencies around the state. The utilities' Products program works with over 100 retailers around the state to help customers purchase highly efficient appliances such as refrigerators, clothes washers and room air conditioners. These efficient models save 10-20% of the energy used compared to standard models. The program also encourages customers to purchase energy efficient light bulbs that save 75% of the energy used by standard incandescent bulbs, while lasting 10-25 times longer.

Additionally, the programs help businesses and non-profits around the state identify and install more efficient lighting, controls, motors, HVAC equipment, water heating equipment, air compressors and industrial process equipment. These energy efficiency improvements are implemented in partnership with private contractors around the state, who help the utilities' business customers reduce energy use and save significantly on energy bills. These savings enable the business community to invest more into their businesses and help them stay competitive in the global marketplace. A special focus on municipalities helps to save energy in public buildings, which reduces costs to taxpayers and makes their public spaces a model for efficiency improvements.

Q. What is the utilities' collective vision for the future under an EERS?

A. The utilities' collective vision for the future under an EERS includes continuing to deliver award winning, cost-effective energy efficiency programs to customers and,

should additional funding be made available, expanding the reach of existing programs and implementing new initiatives and innovative implementation strategies.

Q. Please provide a high level summary of the types of expanded program services, new initiatives and innovative implementation strategies that could be explored collaboratively with stakeholders.

A. Examples of expanded program services, new initiatives and innovative implementation strategies that could be explored include:

- Investigating and more broadly piloting emerging technologies and other cost-effective electric and natural gas efficiency measures not currently being offered in the state;
- Offering incentives for Combined Heat and Power projects, which may have the potential for significant energy savings;
- Further exploring behavior change energy efficiency initiatives and investigating commercial and industrial customer benchmark program options;
- Incorporating the use of midstream and upstream program delivery models, which allow for energy efficient equipment, such as lighting, water heaters, heating systems and HVAC equipment to be incented at the retailer and manufacturer level, rather than solely at the customer level, in order to drive product availability at the time of contractor purchase;
- Examining codes and standards enhancement initiatives such as technical assistance, advocacy, training and supporting stretch codes;

- Further exploring early replacement initiatives that can target the retirement of still working condition, but inefficient, systems and technologies;
- Designing Continuous Energy Improvement programs that can help large energy users with tasks such as developing an energy management plan, assisting with facility benchmarking or on-site combustion testing and thermal imaging surveys, and assisting with the financial analyses of energy opportunities;
- Incorporating a distinct focus on the residential moderate income market;
- Expanding low cost financing options through local financial institutions with specific attention on examining opportunities for commercial customers;
- Expanding weatherization services where the utilities have extensive expertise in implementing activities in the residential market. This expertise could be easily expanded to serve more residential customers and to also serve commercial customers;
- Expanding fuel-neutral equipment measures, such as fossil fuel heating and water heating equipment, in order to provide customers with a whole-building solution;
- Boosting energy efficiency education and marketing by providing consistent and clear messaging regarding the benefits of energy efficiency, including opportunities within the programs and outside the programs. Building upon the experiences of the utilities, a broad-based education, marketing and customer outreach effort could be implemented with initiatives such as:
    - Increased use of creative marketing strategies based on further segmenting the commercial/industrial and residential sectors and identifying and catering to unique attributes,

- Advancing the use of on-line technology platforms to more fully engage with customers by bringing together relevant customer information with energy usage, benchmarking and recommendations to drive deeper and broader energy savings; and
- Increased use of multiple media avenues to provide consistent and clear messaging regarding the benefits of energy efficiency, including the prominent integration of the NHSaves brand as the statewide energy efficiency brand.

V. Program Planning Period

Q. What planning period is being proposed by the utilities?

A. The utilities are proposing that upon implementation of an EERS the current energy efficiency program planning period transition from a two-year period to a three-year period.

Q. How would transitioning to a three-year program planning period be beneficial?

A. Transitioning to a three-year program planning period would be beneficial in several ways. First, it will provide more stability and continuity for program implementation, which will assist customers in making plans and investments in energy efficiency opportunities over several years. Second, transitioning to a three-year program plan will send a stronger signal to market actors, such as architects, builders, contractors, developers, engineers, suppliers and retailers that investments in energy efficiency will continue. This signal can help drive these energy efficiency professionals to make their own investments to pursue opportunities in the state. Third, transitioning to a three-year

program planning period will align New Hampshire with the current program planning periods in all other New England states, many of which lead the nation in terms of energy efficiency achievements according to ACEEE[9]. The three-year program planning period in these other New England states has proven to be effective and has coincided with increased energy efficiency investments. Lastly, to meet the formal definition of an EERS adopted by ACEEE, a state must require that long-term energy savings targets be achieved, with "long-term" defined as a period of time of three years or more.[10] Therefore, by establishing a three-year program planning period, New Hampshire is aligning with ACEEE's EERS definition standard.

Q. Is there precedent in New Hampshire for having an energy efficiency program planning period longer than two years?

Yes. Prior to 2010, the natural gas utilities in New Hampshire operated within three-year program planning periods for their respective natural gas energy efficiency program activities, with the last three-year program planning period having commenced in April of 2009[11].

VI. Stakeholder Engagement

Q. Do the utilities currently engage stakeholders in the energy efficiency planning, implementation and evaluation process?

[9] American Council for an Energy Efficient Economy (2014, October). The 2014 State Energy Efficiency Scorecard.
[10] American Council for an Energy-Efficient Economy (2015, April). State Energy Efficiency Resource Standards (EERS). Retrieved from http://aceee.org/sites/default/files/eers-04072015.pdf
[11] New Hampshire Public Utilities Commission (2006, June 8). DG 06-032, EnergyNorth Natural Gas, Inc., d/b/a Keyspan Energy Delivery New England, Demand-Side Management and Market Transformation Plan, Order Approving Settlement Agreement, Order No. 24,636. Retrieved from http://www.puc.nh.gov/Regulatory/Orders/2006orders/24636g.pdf

A. Yes. The range of stakeholders the utilities work with on a daily basis to plan, deliver, and evaluate the energy efficiency programs is substantial. It includes retailers, manufacturers, equipment distributors, contractors, builders, architects, engineers, trade associations, non-profit organizations, policy makers, program evaluation vendors and, most importantly, customers. The support and feedback received from this network of energy efficiency professionals, policy makers and customers is crucial to the success of the programs.

By working collaboratively, the utilities' collective vision to continually improve program offerings while increasing awareness of the significant economic and environmental benefits energy efficiency brings to New Hampshire can be more readily attained. Currently, each energy efficiency plan prepared by the utilities is thoroughly reviewed by the Commission's Staff and other stakeholders in an open and public process. In addition, quarterly meetings are held with the Commission's Staff and stakeholders to review each program's status and discuss high-level program delivery and implementation strategies.

Finally, upon the completion of each program evaluation, the utilities and the Commission's Staff host a program evaluation review meeting with utility staff and stakeholders, where third-party program evaluation contractors provide a synopsis of their detailed program evaluation findings. These evaluation review meetings provide stakeholders with an opportunity to have direct access to the third-party program evaluators, allowing any questions to be fully addressed.

Q. Have the utilities undertaken any recent initiatives to expand stakeholder involvement during the planning process?

A. Yes. Two initiatives were undertaken in 2014 to expand stakeholder involvement during the planning of the 2015/2016 Statewide Energy Efficiency Plan. The utilities invited all stakeholders in Docket No. DE 14-216 and members of the Energy Efficiency and Sustainable Energy ("EESE") Board to a half-day brainstorming session. The session consisted of a brief program review and presentation of the changes being considered by the utilities, followed by an open brainstorming session. Each stakeholder had an opportunity to provide ideas and indicate priorities from among the ideas that were shared. An online follow-up survey was sent to those who attended the brainstorming session. The results were then summarized and discussed at the June 2014 Quarterly Meeting.

Several ideas from these sessions were incorporated in the 2015/2016 Statewide Energy Efficiency Plan, including increasing the percentage of funds directed to the income-eligible weatherization program from 15% to 15.5%, transitioning more quickly to LED lighting incentives, including weatherization services in the Municipal program, and expanding the third-party financing option. The utilities appreciated the candid and beneficial feedback received from stakeholders during this process and look forward to future planning sessions.

Q. Does an energy efficiency stakeholder board currently exist in New Hampshire?

A. Yes. The "EESE Board" was created under the Multiple Pollutant Reduction Program enacted by the New Hampshire legislature (RSA 125-O:5-a) and exists to promote and coordinate energy efficiency, demand response, and sustainable energy programs in the

state. The board's duties include a broad range of energy efficiency-related focus areas, some of which include "developing a plan to achieve the state's energy efficiency potential for all fuels", "developing tools to enhance outreach and education programs to increase knowledge about energy efficiency and sustainable energy among NH residents and businesses" and "encouraging municipalities and counties to increase investments in energy efficiency and sustainable energy through financing tools, and to create local energy committees." RSA 125-O:5a, I.

Q. What is the composition of the EESE Board?

A. The EESE Board is prescribed by RSA 125-O:5,A,II and includes a diverse group of energy efficiency and sustainable energy stakeholders, state policy makers, the business community and utility program administrators. The board includes both voting members and non-voting members, several of which are appointed by the Chairman of the Commission.

Q. Could the EESE Board be used as a stakeholder board under an EERS, similar to stakeholder boards in existence in other states?

A. Yes. The utilities consider stakeholder involvement and collaboration as fundamental to the success of an EERS and suggest the NH EESE Board be utilized as an energy efficiency stakeholder board, as the roles, responsibilities and memberships are very similar to other stakeholder boards that exist in other states. A new process could be implemented in New Hampshire, which could include the preparation of a Draft Energy Efficiency Plan for EESE Board review several months before a Final Energy Efficiency Plan would be filed with the Commission for approval. The EESE Board could provide comments directly to the utilities and/or could submit comments to the Commission as

part of the normal adjudicative regulatory process. This new process would provide the utilities, stakeholders and the Commission's Staff with an opportunity to review and discuss a draft plan in a collaborative, non-adjudicative setting well in advance of the filing of the final plan with the Commission. The utilities expect any comments submitted to the Commission on behalf of the EESE Board would be duly considered by the Commission during the formal adjudicative regulatory proceeding. A timeline incorporating this new stakeholder process is discussed later in this testimony in the Implementation & Timeline Section (Section XII).

Q. Would the EESE Board require additional resources to take on the additional role of reviewing the draft energy efficiency plans prepared by the utilities?

A. An administrative employee may be needed to assist with this new EESE Board role, as well as the other current roles of the EESE Board. Should the Commission determine that such a state resource is required, RGGI could be used for funding. RGGI (RSA 125-O:23.I) states, "A portion of the fund moneys shall be used to pay for commission and department costs to administer this subdivision, including contributions for the state's share of the costs of the RGGI regional organization. No fund moneys shall be used by the commission or the department to contract with outside consultants." In addition to an administrative resource, the EESE Board could engage Northeast Energy Efficiency Partnerships ("NEEP"), Regulatory Assistance Project ("RAP"), or other organizations to help inform the stakeholder process on an ongoing basis.

Q. Please describe how the new role of the EESE Board would compare to and complement the regulatory oversight role of the Commission.

A. The enhanced stakeholder engagement process envisioned by the utilities would create an additional direct link between the EESE Board, the utility program administrators and the Commission during the development phase of the three-year statewide energy efficiency plans. The diverse membership of the EESE Board would bring a broad perspective to the planning process. Since the EESE Board process is based on consensus decision making, it would likely result in a broad base of stable support for New Hampshire's energy efficiency programs.

In addition, more efficient adjudicative regulatory proceedings may result, as in-depth discussions would occur prior to the filing of a final plan with the Commission. The EESE Board could potentially provide input on overarching strategies associated with program design and delivery, as well as outreach and education, which would fit under the EESE Board's existing statutory role of coordinating and promoting energy efficiency programs in the state. The Commission's regulatory role of overseeing the state's energy efficiency programs would continue in its current form. The Commission would continue to determine if the final plans submitted by the utilities are in the public interest, including the program budgets and program cost-effectiveness.

In accordance with the Commission's statutory authority to set just and reasonable rates, the Commission would determine the energy efficiency rate levels for effect during the three-year plan periods. Finally, the Commission would continue to oversee the ongoing reporting requirements, savings achieved, participation and cost effectiveness goals, and conduct the annual financial audits of the energy efficiency programs.

VII. Savings Targets

Q. How are savings targets currently set for energy efficiency programs in New Hampshire?

A. In a collaborative process overseen by the Commission, the utilities currently develop two year savings targets based on available program funding along with a comprehensive and coordinated portfolio of efficiency programs for both business and residential customers. Since 2002, energy efficiency programs administered by the electric utilities have functioned under a public and regulatory policy where the level of program funding has been limited by the level of System Benefits Charge ("SBC") revenues allocated to energy efficiency and some additional revenue sources (i.e. ISO-NE Forward Capacity Market and RGGI revenues the state receives from its participation in RGGI). Similarly, and as discussed later, when setting savings targets, the natural gas utilities consider the level of program funding that is appropriate for the planning period taking into consideration the bill and rate impacts such funding will have on customers.

Q. What savings targets under an EERS are the utilities proposing?

A. The ultimate savings target of the EERS in New Hampshire should be all achievable cost-effective energy efficiency over time.[12] The EERS in New Hampshire should feature three-year energy savings targets to be achieved via the utility administered energy efficiency programs beginning as soon as practicable. The savings targets should be established as electric kWh and natural gas MMBtu annual sales reductions and come from demonstrated savings potential and the level of energy efficiency funding available to the electric and natural gas utilities. When establishing the level of energy efficiency

[12] http://aceee.org/policy-brief/state-energy-efficiency-resource-standard-activity

funding, the Commission should consider the effect of any rate increases on residential and commercial customers' bills before approving customer funding for energy efficiency programs. Creating targets that result in drastic increases in the SBC and LDAC may prompt customers to challenge the EERS even though the targets are intended to create long term savings. Thus, customers' reactions to the effect that the EERS could have on bill impacts and rates must be carefully considered.

Q. How should the targets be set?

A. The energy savings targets should be developed through a comprehensive planning process that includes detailed energy efficiency program plans designed to achieve savings targets cost effectively over a three year planning horizon. Such savings targets and program budgets would be based on the level of energy efficiency funding available to the utilities. This approach would result in energy savings targets that are set through a comprehensive review process that validates savings targets feasibility, provides a detailed plan to show which specific programs and activities will be implemented based on the funding levels and revenue sources available to achieve the goals.

Finally, the savings targets should only apply to regulated fuels. For fuels that are not regulated by the Commission (e.g. fuel oil, propane, wood, etc.), savings targets should not be set, but the savings should be identified and tracked during the planning period so that the benefits associated with these savings are captured and provided in plan reports.

Q. Why do the utilities recommend only setting energy savings targets for a three year period?

A. The ultimate savings target objective of the EERS in New Hampshire should be the acquisition of all achievable cost-effective energy efficiency. The Commission should allow the utilities flexibility to adjust specific savings targets in the future as market conditions change and more relevant, New Hampshire-specific information becomes available. This information may include evaluation and technical potential studies, changes to state building codes and federal appliance and lighting standards, new technologies, as well as actual energy efficiency program achievements. Each of these will help to inform what the appropriate specific energy savings targets should be for New Hampshire in the future. A new, three-year program planning cycle is the appropriate timeframe for defining energy savings targets beyond the final year of the first three-year plan cycle. This is consistent with the approach undertaken by energy efficiency program administrators in Connecticut, Massachusetts, Rhode Island and Vermont and is considered exemplary by ACEEE.

Q. Should savings targets be defined by utility?

A. Yes. Overall energy savings targets should be established for the utilities acting as a unified collaborative during a three-year period. Individual utility targets should be defined as part of the new, three-year program planning process, which is consistent with the approach already in place in New Hampshire. This approach is also consistent with the EERS target setting process in Connecticut and Massachusetts, where energy efficiency savings targets are customized by each utility. Different market conditions and opportunities for energy efficiency exist in different parts of the state, and vary by customer sector. Consequently, specific utility energy savings targets should be set to reflect those differences.

Q. Should rate and bill impacts be considered when setting savings targets under an EERS in New Hampshire?

A. Yes. Although cost effective energy efficiency services can and do provide significant benefits to the businesses, residents and communities in New Hampshire, it is important to consider the rate and bill impacts of energy efficiency programs on customers. For over a decade, the successful collaboration between the Commission and the utilities to implement the current levels of energy efficiency has resulted in the development and delivery of award winning, innovative energy efficiency programs that have had a significant, positive impact on utility customers across the state. These programs have consistently resulted in savings that are cost effectively delivered by the utilities to achieve energy savings targets over time. While it is clear that there are long-term benefits to implementing energy efficiency measures, the pace at which these measures are implemented should be considered and balanced against the short-term effect of any rate increases required to reach a targeted level of savings. In particular, as changes in energy efficiency policy are considered, the rate implications for residential, low-income and business customers must be carefully considered.

VIII. Funding & Program Cost Recovery

Q. Please explain how the NHSaves programs are currently funded.

A. The NHSaves programs are funded through a combination of rates: the SBC for electric customers and the Local Distribution Adjustment Charge ("LDAC") for gas customers, proceeds from the electric utilities' participation in the ISO-NE forward capacity market ("FCM"), and a portion of New Hampshire's proceeds from the Regional Greenhouse Gas Initiative ("RGGI") funds. Each of these funding sources is described below.

SBC: The SBC charge is assessed on electric customer bills and provides funding for energy efficiency and other programs. The portion of the SBC allocated to energy efficiency funding is a rate that was established in 2001 via Docket No. DE 01-157 from Order No. 23,850. The current portion of the SBC contributing to energy efficiency is $0.0018 per kWh, and is the same for all NH electric utilities. The current low income portion of the SBC rate is $0.0015 per kWh, which was set in accordance with RSA 374-F:4, VIII(c) and states the following, in part: "The portion of the system benefits charge due to programs for low income customers shall not exceed 1.5 mills per kilowatt-hour." This law does not place a cap on the energy efficiency portion of the SBC rate.

LDAC: As with the SBC, the LDAC rate is assessed on bills to natural gas customers and includes a component that provides funding for energy efficiency programs. This rate component is calculated by each natural gas utility by creating a budget for the period and dividing that budget by the expected load, measured in therms. A separate LDAC rate is calculated for each rate class to reflect separate budgets for each group. The energy efficiency portion of the LDAC is calculated separately by each gas utility using a proposed budget and projected sales. Each company's rate is different and there is no cap placed on the energy efficiency portion of the LDAC.

FCM: Proceeds from the FCM provide a direct source of funding for New Hampshire energy efficiency programs. The New Hampshire electric utilities are the only energy efficiency service providers in New Hampshire participating in the FCM. This participation has resulted in an additional $13 million in energy efficiency services to New Hampshire's residents and businesses from 2007 through 2014, and is estimated to bring $5 million in services over 2015-2016.

RGGI: Currently, a portion of the first $1 per RGGI allowance sold at regional auction has been directed to the NHSaves Programs for low-income and municipal energy efficiency projects. The additional revenue that the state receives in excess of the first $1 per allowance sold is rebated to all retail electric customers pursuant to RSA 125-O:23, II.

Q. What is the role of the SBC and LDAC in relation to the electric and gas utilities' overall rate structures?

A. Each utility's rate structure is comprised of a number of distinct components of service (i.e., distribution, transmission, supply, etc.) that are separately listed on customer bills. Rates for each component are designed to recover costs approved by the Commission for that component of service. The total monthly charge for service billed to each customer is comprised of the charges for each component of service. The SBC and LDAC charges that appear on each customer's bill provide a portion of the energy efficiency program funding for each utility, as previously discussed.

Q. What is the most reliable and practical funding source for New Hampshire's energy efficiency programs?

A. The most reliable and practical funding source for New Hampshire's energy efficiency programs is utility customers. Utility customers are the primary beneficiaries of the energy efficiency measures installed, and are incentivized to participate by partially funding the programs. Third-party private financing alone will not support a significant increase in energy efficiency activity, so a more stable and reliable source is needed if an EERS is to be successful. Furthermore, the ability to leverage private funding at a scale necessary to have a meaningful impact is unproven to date.

Q. Why do the utilities recommend continued use of the SBC and LDAC rate components to collect energy efficiency program funding under an EERS?

First, the SBC and LDAC are the primary methods used to fund the current NHSaves programs. Continued use of these established charges will allow for consistency in customers' bills, require little additional effort to change, and may be set at any level deemed reasonable and appropriate by the Commission. Furthermore, the SBC and LDAC rates are both variable rates. Since these rates are applied on a per kWh and per therm basis, customers are charged based on their actual consumption. Some benefits of using these variable rates are: customers pay into the programs in proportion to their usage, receive an enhanced price signal for using energy more efficiently, are automatically incentivized to use less energy and are encouraged to pursue energy efficiency measures. Therefore, the utilities recommend that the SBC and the LDAC continue to be used for funding under an EERS at levels approved by the Commission.

For electric customers, the energy efficiency portion of the SBC rate would be set by Commission order. Increases to the energy efficiency portion of the SBC rate would result in an increase to energy efficiency funding and to the overall SBC rate. The resulting rate would influence the level of the savings targets set forth in a three-year plan, as mentioned earlier in this testimony.

For natural gas customers, the energy efficiency portion of the LDAC is calculated based on a budget determined once savings are set. The changes to the LDAC rate are taken into account through the annual Cost of Gas approval process. A higher target will require a higher budget, thus resulting in a higher energy efficiency portion of the LDAC.

Q. Please provide and discuss illustrative customer bill impacts and annual percentage electric savings targets that may result assuming no change, a 50% increase and a doubling of the energy efficiency component of the current SBC charge.

A. Attachment 1 provides an illustration of statewide energy efficiency program funding, bill impacts across sectors and estimated statewide savings under three separate scenarios. For each scenario, the SBC rate and funding from all sources, the monthly and annual bill impacts for a customer in each sector, and estimated savings under low- and high-cost to achieve savings assumptions are provided.

Scenario 1 shows current levels of funding through the SBC and from other sources. There would be no change in the energy efficiency component of the SBC and therefore no change to customer bills. Estimated statewide savings under this scenario are between 0.36% and 0.48% of 2014 delivery sales. In Scenario 2, the energy efficiency portion of the SBC has been increased by 50%, from $0.0018/kWh to $0.0027/kWh. Under this scenario, statewide funding would increase by nearly $10 million and a typical residential customer would see an increase to their bill of $0.56 per month. Estimated statewide savings achieved would be between 0.52% and 0.68% of 2014 delivery sales. Similarly, under Scenario 3 the energy efficiency portion of the SBC has been doubled, resulting in an increase from the current rate of $0.0018/kWh to $0.0036/kWh. This increase would provide nearly $20 million of additional statewide funding, and a typical residential customer would see an increase to their bill of $1.13 per month. Estimated statewide savings achieved would be between 0.67% and 0.87% of 2014 delivery sales.

Q. Please discuss how often the energy efficiency portion of the SBC could change, and the recommendations for the overall structure of the SBC rate.

A. The SBC rate illustration in Attachment 1 is based on an overall, annual funding level for energy efficiency. The energy efficiency component of the SBC rate could be set at a specific level for a three-year plan period or be set to change annually within the three-year plan period. The utilities envision determination of the energy efficiency component of the SBC rate would precede development of each three-year plan in which annual savings targets are set.

In all scenarios provided in Attachment 1 a uniform rate per kWh is applied. The utilities recommend maintaining this structure for the energy efficiency portion of the SBC rate. The utilities recommend that the rate set by the Commission for the energy efficiency component of the SBC rate (currently $0.0018 per kWh) would continue to be a uniform per kWh rate that is the same for each of the electric utilities and that is part of their respective overall SBC rates charged to their customers, which are also on a per kWh basis. Once the energy efficiency component of the SBC rate and therefore funding levels are set for a given period, annual savings targets would be set, pursuant to the three year plan, as approved by the Commission.

Q. Please discuss how often the energy efficiency portion of the LDAC could change, and the recommendations for the overall structure of the LDAC rate.

A. The LDAC rate changes annually. The energy efficiency portion of the LDAC is calculated based on a spending budget, which in turn is calculated into a rate based on the number of therm sales projected. The utilities are not proposing to make any changes to how the energy efficiency portion of the LDAC is calculated at this time.

Q. Are there other potential funding sources for an EERS?

A. There could be, and some had been discussed during the initial stakeholder process, but none are as stable and reliable as the SBC and LDAC. One of the third-party financing options available is the Commercial Property Assessed Clean Energy ("C-PACE") program. The Jordan Institute provided in-depth information during one of the technical sessions, noting that C-PACE falls under the umbrella of third-party financing, specifically for commercial buildings. C-PACE works as follows: "Municipalities voluntarily adopt RSA 53-F which allows them to establish special assessment districts where commercial building owners may finance cash-positive energy-efficiency and renewable-energy projects and tie the financing to the property through a voluntary special assessment/lien. This effectively ties the repayment to the building, not the borrower." The City of Concord is the first municipality to sign on to the program. The utilities agree with the Jordan Institute that C-PACE could work in combination with the energy efficiency programs administered by the utilities.

Q. Have other New England states used the SBC or other mechanisms to collect funding for their EERS?

Yes. Other New England states have implemented an EERS using a combination of a system benefits charge along with another mechanism to collect incremental funding. In Massachusetts, electric utilities use the Energy Efficiency Reconciliation Factor ("EERF") to collect funding if energy efficiency program costs exceed all other available funding sources. This mechanism recovers and reconciles costs associated with increased energy efficiency. In Connecticut, the Conservation Adjustment Mechanism ("CAM") is used in the same manner as the EERF, collecting incremental energy efficiency funding

above the legislatively set system benefits charge (i.e., the Conservation and Load Management rate).

According to the presentation from Northeast Energy Efficiency Partnerships during the August 21, 2015 technical session, the Edison Electric Institute (December 2014) notes that 16 states in the United States use the SBC as the primary source of funding for energy efficiency.

Although a separate funding mechanism has been created in other New England states, a new, separate mechanism is not needed in New Hampshire. New Hampshire's SBC is fully equipped to fund programs under an EERS because there are no statutory limits to energy efficiency funding. As stated earlier, RSA 374-F:4, VIII(c) only provides for a cap to low income programs as part of the SBC, but does not prohibit changes to the energy efficiency portion of the rate. Moreover, each NH utility can readily incorporate changes in energy efficiency funding into the SBC rate and begin billing that rate with no changes to their respective billing systems. Should the Commission desire to increase energy efficiency funding, the utilities strongly recommend the Commission issue an order increasing the energy efficiency portion of the SBC to accommodate an increase in energy efficiency funding.

IX. Lost Revenue Recovery

Q. Please discuss the revenue impact of increased energy efficiency and the recovery of lost revenue through rates.

A. Implementing energy efficiency measures results in a reduction in revenue for all components of service. While certain components of service (e.g. transmission service

for electric customers) include reconciliation mechanisms, the distribution component of service does not. Rates for distribution service are predicated on an approved level of revenue requirements and are designed using assumptions about a set level of customers, demand and consumption for each rate class (i.e. based on the utility's test year). Furthermore, the utility may have incurred additional costs since their last rate setting proceeding. To the extent that the distribution utility does not have the opportunity to reconcile costs incurred outside of the test year, the implementation of an EERS will ultimately be detrimental to utility revenues. Until the utility can address changes to its distribution rates (to reflect impacts of energy efficiency as part of a general rate case), a mechanism to recover lost distribution revenue specifically associated with energy efficiency measures implemented under the EERS is needed.

Q. Do the utilities have a proposal for recovering lost distribution revenue?

A. Yes. The utilities propose to recover lost distribution revenue through the SBC for electric utilities and LDAC for gas utilities via a Lost Base Revenue ("LBR") adjustment. An adjustment for lost revenues due to energy efficiency measures would be used to restore the assumed relationship between sales levels and revenue requirements that was the basis for setting rates in each utility's last rate case.

Q. Please explain.

A. Historical test year ratemaking assumes a direct relationship between the recovery of fixed costs and sales. It assumes that a growth in sales is accompanied by increased costs. As a result, increased revenues resulting from increased sales are assumed to be necessary to cover increased costs. The successful implementation of energy efficiency programs would cause the utility to collect less of the approved revenue requirement.

Since the loss of sales does not necessarily equate to a similar decrease in fixed costs used to set rates in the last distribution rate proceeding, an adjustment for lost revenues would simply restore the assumed relationship between sales levels and revenue requirements.

Q. Please explain why the SBC is the best approach for electric utilities to use to recover lost revenues due to an EERS.

A. Given the lack of a distribution rate reconciliation mechanism for each utility, and that there are separate and distinct rates for the recovery of transmission and energy service costs for each utility, the best approach to recover lost distribution revenues is through the SBC via an LBR adjustment. The NH utilities propose to add lost distribution revenues as an additional component to the SBC. This new component would be reconciled annually by each company through an LBR adjustment.

Q. How would the lost base revenue component of the SBC be calculated?

A. The new component of the SBC would be calculated by dividing the cumulative lost distribution revenue associated with energy efficiency savings for a given period by the projected kilowatt-hours for the period in which they would be recovered. Thus, the general calculation for a given period would be:

Total Lost Revenues = Projected Cumulative Electric Savings x Utility's Distribution Rate

Lost Revenue Rate = Total Lost Revenues / Projected Kilowatt-hours

The utilities would request a rate change annually for the lost revenue portion for the same upcoming period, while at the same time performing a reconciliation of actual and forecasted revenue for the previous annual period.

Use of the SBC for both funding and lost revenue recovery can be readily implemented by each utility and provides a transparent, efficient mechanism by which to address both funding and lost revenue recovery while eliminating the need for a new, separate billing mechanism.

Q. How are the gas utilities proposing to recover lost distribution revenues?

A. Lost gas distribution revenues should be recovered through the LDAC via an LBR adjustment. An additional component to the rate, similar to the lost electric revenue component that is being proposed for inclusion in the SBC, would provide lost revenue recovery for energy efficiency measures that reduce therm sales for the gas utilities.

Q. What are the merits of applying an LBR adjustment?

A. The LBR adjustment can be established by each utility without the need for a rate case; it also provides significant transparency and specificity with regard to the impact of actual energy efficiency savings and calculation of lost revenue, and would implement lost revenue recovery coincident with implementation of savings measures.

In contrast, to establish and implement a mechanism such as a revenue decoupling mechanism, each utility would need to file a distribution rate case which would entail a lengthy process that requires extensive resources from the utility, Commission Staff and any interested parties. Furthermore, such a case would involve much more than the revenue impacts of energy efficiency in determining revenue requirements and appropriate rate mechanisms (i.e. all aspects of distribution revenue requirements and ratemaking would come into play, such as issues associated with distribution capital investments, operating and maintenance costs, rate of return, etc.). In Order No. 24,934

in Docket No. DE 07-064, the Commission stated that, consistent with traditional practice, rate design changes should occur in the context of a rate case.

Relative to the filing of a rate case and in consideration of the scope and purpose of an LBR adjustment (i.e. to address lost revenue associated with energy efficiency spending), the implementation of an LBR adjustment consistent with that proposed herein would be both effective and efficient.

Q. Please provide details on the proposed process for utilities to request recovery of lost revenues.

A. As the utilities roll out their energy efficiency programs each year, the associated lost revenues would be different for each utility. Because of this, each utility will file its own request to recover the lost revenues each year and such requests would be individually adjudicated by the Commission. This adjudicative proceeding will not be part of the three-year planning process, but forecasted LBR figures could be incorporated within the three-year plan.

Q. Does NHEC propose adding a lost revenue component to its SBC?

A. No. The primary purpose of lost revenue mechanisms is to address revenue recovery issues which are usually 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. Therefore, NHEC does not propose to include a lost revenue component in its SBC.

X. Performance-based Incentives & Penalties

Q. Please describe the background to the current NHSaves performance-based incentives.

A. On September 6, 2013, the Commission issued Order No. 25,569 in Docket No. DE 12-262 approving a performance incentive formula beginning with the 2014 program year for the electric utilities. In addition, as part of the Settlement Agreement approved in that docket, the Settling Parties and Commission Staff agreed to discuss the performance incentive formula for the gas utilities for 2015 and beyond at the NHSaves meetings in 2014. As a result of the discussions that took place in 2014, the Commission Staff and the utilities informally agreed that it was premature to further discuss the performance incentive formulae for the gas utilities because a preliminary EERS proposal was to be circulated by the Staff in 2014.The appropriate time to further discuss the performance incentive mechanism would be when the details of that EERS proposal were known.

Q. How are the utilities proposing to calculate future performance incentives under an EERS?

A. The current performance incentive formulaic methodology should be maintained and utility performance would continue to be evaluated against both the achievement of the defined savings and cost effectiveness targets. The methodology would be based on actual program expenditures rather than budgeted expenditures with threshold and maximum performance payout levels. The current performance incentive mechanism is easy for stakeholders to understand, meaningfully tracks performance, and effectively addresses the items most pertinent to rewarding performance. If an LBR adjustment is

approved for implementation, then the current performance incentive target percentages should be considered in conjunction with the LBR adjustment.

Q. Do the utilities believe there should be additional penalties associated with an EERS?

A. No. The performance incentive is a significant financial motivator to further encourage the utilities to determinedly pursue energy efficiency and achieve the targets. Failure to earn the incentive provides sufficient financial detriment, and additional penalties are not necessary. In the Utility Performance Incentives Mechanisms Handbook for Regulators[13], dated March 9, 2015, Synapse Energy Economics states: "…it may be beneficial to administer incentives on a positive basis only. This is common for energy efficiency incentives where any megawatt-hour of energy saved through cost-effective efficiency programs results in a benefit to ratepayers. In addition, reward-only incentives tend to encourage utilities to be more innovative, and may result in a more collaborative and less adversarial process." The utilities agree with this assessment.

Q. Have there been instances where the New Hampshire utilities have not earned the full incentive?

A. Yes. In 2011, EnergyNorth Gas's Commercial & Industrial programs did not meet the energy savings target threshold performance level, and in 2012, Granite State Electric's Residential programs did not meet the benefit-cost ratio threshold. In both instances, the company's performance incentive for the sector was reduced by 50% for that sector.

[13] http://synapse-energy.com/sites/default/files/Utility%20Performance%20Incentive%20Mechanisms%2014-098_0.pdf

In 2010, NHEC's Commercial programs did not meet the energy savings target threshold, and in 2013, NHEC's Residential programs did not meet the energy savings target threshold. In both instances the result was a 50% reduction in the incentive for that sector.

XI. Evaluation, Measurement & Verification

Q. Please provide details as to how the utilities currently report their activities related to energy efficiency.

A. Currently, the utilities jointly submit quarterly reports to the Commission summarizing the progress towards meeting each efficiency program's goals as approved by the Commission. These reports include information such as comparisons of actual savings levels against planned annual and lifetime savings (in kWh and MMBtu), actual versus planned expenditures, CO_2 emissions reductions, and customer participation. The reports also detail actual expenditures by activity according to the various defined spending categories. More specific reports are provided detailing the accomplishments of the Home Energy Assistance ("HEA") program because the HEA program is delivered in conjunction with the Community Action Agencies, whose funding is supplemented by the federal Weatherization Assistance Program. Quarterly revenues and expenses associated with the electric utilities' participation in the forward capacity market are also detailed, as are evaluation, measurement and verification activities.

In addition to quarterly reports, each of the utilities files an annual report detailing the accomplishments, performance incentive calculations and cost effectiveness of their energy efficiency programs as compared to the originally filed plan. Based on these final year-end results, each of the utilities undergoes a comprehensive annual fiscal and

programmatic audit by Commission Staff.

For verification purposes, as part of participating in ISO-NE's forward capacity market, the electric utilities also report summer and winter on-peak demand savings to ISO-NE on a monthly basis. These monthly reports demonstrate to ISO-NE that the utilities are fulfilling the capacity supply obligation that is associated with qualifying in the FCM. ISO-NE distributes payments to the utilities for energy savings resulting from their energy efficiency programs.

In addition, both the electric and natural gas annual and incremental energy savings are reported each year to the U.S. Energy Information Administration (as part of their Annual Electric Power Industry Report), the American Gas Association's Natural Gas Efficiency Program Survey, and to Northeast Energy Efficiency Partnerships' Regional Energy Efficiency Database.("REED").

Q. Are there standards of accountability and verification of results in the current energy efficiency programs offered by the New Hampshire electric and natural gas utilities?

A. Yes. The New Hampshire electric and natural gas utilities energy efficiency programs have maintained high standards of accountability since their inception. The energy savings associated with energy efficiency programs need to be accurate first and foremost, as customers plan for, and expect to see, savings as a result of their investments in energy saving technologies. Accuracy is also important because the utilities report savings to the Commission, ISO-NE as part of the FCM, the U.S. Department of Energy's Energy Information Administration, and the American Gas Association. The utilities' energy efficiency programs are subject to several levels of quality control,

including verification of results and onsite inspections by utility staff and/or quality assurance contractors for residential and commercial and industrial energy efficiency projects. Independent third party market assessments and program process and impact evaluations are undertaken on a regular basis in conjunction with the Commission Staff to further verify the accuracy of the energy savings and to inform future program design.

As part of reporting summer and winter on-peak demand savings from the energy efficiency programs and bidding into ISO-NE FCM, each electric utility is required to ensure compliance with ISO-NE Measurement and Verification Standards through an annual certification process with an independent third party contractor. ISO-NE also requires that evaluations used to verify energy savings meet certain rigor and are no older than five[14] years (unless there is a justification that an older evaluation still accurately reflects the energy savings). Under the regulatory oversight of the Commission, each of the energy efficiency programs meet stringent and transparent reporting requirements regarding their achievement of planned savings, participation, and cost effectiveness goals. In addition to review by the Commission, the utilities' reports and activities are reviewed and discussed by those participating in the energy efficiency docket at quarterly in-person meetings and presentations. The Commission also performs annual financial audits as part of its oversight role.

Q. Please elaborate on the role of "independent third party program evaluations" mentioned in the previous answer, and on the objectives of those evaluations.

[14] Section 15.2 of "ISO New England Manual for Measurement and Verification of Demand Reduction Value from Demand Resources, Manual M-MVDR", Revision: 6, Effective Date: June 1, 2014.

A. To deliver cost-effective programs and ensure that claimed savings are accurate, the energy efficiency programs undergo periodic evaluation by independent third-party consultants. A settlement agreement approved by the Commission on March 17, 2006 (Order No. 24,599 in Docket No. DE 05-157) assigned responsibility for monitoring and evaluation efforts related to the energy efficiency programs to the Commission. The utilities work collaboratively with the Commission's Staff to identify studies to be undertaken, assist with issuing requests for proposals, provide customer data and energy efficiency project details to independent third party evaluators, and review and comment on proposals and draft reports. Evaluations can include one or more of the following objectives:

- *Impact Evaluations* measure actual energy and demand savings achieved within overall program populations and recommend improvements;
- *Market Assessment Evaluations* measure the effects of energy efficiency programs on the structure and functioning of their target markets, and/or characterize existing markets to more effectively transform them through energy efficiency programming;
- *Process Evaluations* document current program design and delivery and may recommend improvements that will result in greater effectiveness; and
- *Pilot Evaluations* assess the effectiveness of pilot programs or measures, determine their potential for full-scale implementation, and recommend changes.

Q. Do the utilities have recommendations for how evaluations should be conducted on a going forward basis as part of an EERS?

A. Yes. If the scale of energy efficiency increases under an EERS, the utilities recommend the Commission, in collaboration with the utilities, hire an independent evaluation consultant to guide New Hampshire's energy efficiency evaluation activities on an ongoing basis, review and adjust evaluation priorities, and create an implementation plan that incorporates the recommendations contained in the "Six-Year Evaluation Plan for CORE Energy Efficiency Programs" that was prepared in September 2014. As part of this review, an evaluation of the energy efficiency savings requirements contained in the Environmental Protection Agency's ("EPA") Clean Power Plan could be conducted to determine if the requirements differ from those required by the Commission and ISO-NE. This evaluation would be particularly helpful if, for example, energy efficiency savings in New Hampshire are used to comply with the EPA's Clean Power Plan. In addition, NEEP's initiative to develop standardized EM&V methods reporting forms could be reviewed to determine if these forms should be included in future New Hampshire program evaluations.

As in the past, program evaluations should be completed through coordination between the Commission, the utilities, and other interested parties. While the Commission should continue to be responsible for oversight of the EM&V activities with the assistance of an independent evaluation consultant, the utilities would manage the evaluation activities, including preparing Scope of Work documents, issuing Requests for Proposals, evaluating proposals and selecting independent third party evaluation contractors in collaboration with the Commission's Staff. It is reasonable and appropriate for the utilities to manage the evaluation activities because they have procurement and contract management capabilities that allow them to act efficiently and cost-effectively. In

addition, they can draw upon existing relationships with EM&V consultants and colleague counterparts from among their affiliates in other states to help coordinate evaluation activities and identify best practices, current challenges and opportunities.

Q. Can you provide an example of a New Hampshire-based collaboration in which an independent evaluation affirmed the unique benefits of using the utilities' energy efficiency programs as a means of quickly and effectively delivering energy efficiency services?

A. Yes. In 2013, collaboration among the New Hampshire NHSaves utilities, the Community Development Finance Authority (CDFA) and OEP utilizing federal funds from the Better Buildings Program resulted in 450 New Hampshire homes receiving over $600,000 in energy efficiency program services, including audit and weatherization services and/or the replacement of appliances and lights with more efficient models. In addition, approximately 40 percent of the participating customers received on-bill financing services totaling over $1 million, which allowed customers to access capital to cover the cost of the projects not subsidized by the energy efficiency funds. In late 2013, an independent, national evaluation of the Better Buildings Program highlighted the value the NHSaves utilities brought to energy efficiency program delivery in New Hampshire. Specifically, the evaluation report stated:

> *"A number of the concerns regarding contractors, audit reports and multiple funding sources for the residential program were addressed when NH BetterBuildings executed partnership contracts with three utilities that run the HPwES program in New Hampshire. Formally integrating with HPwES allowed NH BetterBuildings to merge with an existing program structure that provides a standardized, easy to read*

audit report and robust contractor oversight with the option for the customer to choose their own contractor, or if they prefer, to have a qualified contractor assigned by the program. The partnership also created a single entry point and program explanation for customers who were previously confused by the separate NH BetterBuildings and HPwES programs."

XII. Implementation & Timeline

Q. Do the utilities have a recommendation regarding a timeline for implementation of the EERS?

A. Yes. The utilities have developed a recommended timeline that provides for the implementation of programs under the EERS on January 1, 2018.

Q. Why are the utilities recommending implementation to begin in 2018?

A. The utilities are recommending implementation in 2018 to allow adequate time for thorough program development and a more comprehensive stakeholder review process. Under this implementation timeframe, the utilities would present a draft three year plan to the EESE Board on or by April 1, 2017 and EESE Board comments would be shared with the utilities two months later, on May 31, 2017. The utilities would then file the final three year program plan by September 30, 2017 for Commission approval and implementation by January 1, 2018. It may be possible to implement the programs in 2017, but with a more compressed timeframe, stakeholder review would need to occur as part of the adjudicative regulatory process which would not allow time for the enhanced stakeholder engagement process as described in Section VI of this testimony. Therefore,

the utilities are recommending full implementation in 2018 with a one year transition plan.

In developing this proposed timeline, the utilities assumed that a Commission Order approving the implementation of an EERS would contain the following:

- Approval of a specific energy efficiency portion of the Systems Benefit Charge EE funding rate to take effect on January 1, 2018;
- Affirmation of the Guiding Principles contained in the utilities' EERS filing;
- Approval of the use of an LBR adjustment and recovery of lost distribution revenue for the regulated utilities through the SBC and LDAC rates;
- Approval of a performance incentive mechanism;
- Recognition of the EESE Board as an Energy Efficiency Stakeholder Board.

Q. What are the major milestones included in the timeline?

A. Following the 2016 hearing on the EERS, the utilities anticipate that the Commission Order in this docket would be issued by June 30, 2016. On September 1, 2016, the utilities would file testimony regarding the implementation of the LBR adjustment. On September 30, 2016 the utilities will file an interim one year Energy Efficiency Program plan for implementation during 2017. An Order approving the implementation of LBR would be issued on or about January 31, 2017. The utilities would present the three year draft plan to the EESE Board on April 1, 2017; feedback from the stakeholders would be due on May 31, 2017. The final three year plan would be filed on September 30, 2017, with an Order received in time for implementation on January 1, 2018.

XIII. Conclusion

Q. Please detail final considerations for the approval and implementation of an EERS.

A. The utilities believe that approval and implementation of a successful EERS should balance high level principles with savings targets, funding, performance incentives, lost revenue recovery, and customer bill and rate impacts.

The utilities request the Commission issue an Order that approves:

- The guiding principles becoming the standard used to establish an energy efficiency planning process under an EERS;
- The utilities as the program administrators for the EERS programs;
- Allowing the EESE Board to function as an energy efficiency stakeholder board;
- Savings targets that are defined as, "all achievable cost-effective energy efficiency over time," and which are established as electric kWh and natural gas MMBtu annual sales reductions through three-year program plans;
- Saving targets that come from the demonstrated savings potential and the level of energy efficiency funding available to the utilities;
- The SBC and LDAC as the primary methods used to fund energy efficiency programs under an EERS;
- A specific SBC energy efficiency funding rate to take effect on the implementation date of an EERS;
- A lost base revenue adjustment to restore the relationship between sales levels and revenue requirements used in each utility's most recent rate case;

- Maintaining current performance based incentives without penalties beyond those already included within the performance incentive methodology;
- The use of a consultant for assistance in guiding New Hampshire's energy efficiency evaluation activities if the scale of energy efficiency activities increase under an EERS; and
- The implementation of an EERS on January 1, 2018.

Q. Does this conclude your testimony?

A. Yes.