

STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION

DOCKET DE 23-068

IN THE MATTER OF: Electric and Gas Utilities

 2024-2026 New Hampshire Statewide Energy Efficiency Plan

DIRECT TESTIMONY

OF

Heidi W. Lemay, Elizabeth R. Nixon, Jay E. Dudley, and
Mark P. Toscano

New Hampshire Department of Energy

September 12, 2023

Table of Contents

Introduction of Witnesses	4
Summary	7
Statutory Requirements.....	8
Cost-Effectiveness	13
Active Demand Response Programs.....	16
Performance Incentive (PI).....	18
Proposed Planning Process for Next Three-Year Energy Efficiency Plan.....	22
Conclusion	23

List of Attachments

Attachment DOE 1	Response to DOE 1-003
Attachment DOE 2	Response to DOE 1-004
Attachment DOE 3	Response to DOE 1-005
Attachment DOE 4	Response to DOE 1-007
Attachment DOE 5	Response to DOE 1-001
Attachment DOE 6	Response to DOE 1-010
Attachment DOE 7	Response to DOE 1-011
Attachment DOE 8	Response to DOE 1-006
Attachment DOE 9	Response to DOE 1-019
Attachment DOE 10	Response to DOE 1-012
Attachment DOE 11	Response to DOE 1-021

1 **Introduction of Witnesses**

2 **Q. Please state your names.**

3 A. Heidi W. Lemay, Elizabeth R. Nixon, Jay E. Dudley, and Mark P. Toscano.

4 **Q. By whom are you employed and what is your business address?**

5 A. We are employed by the New Hampshire Department of Energy (DOE) in the Regulatory
6 Support Division. Our business address is 21 S. Fruit Street, Suite 10, Concord, NH 03301.

7 **Q. Ms. Lemay, please summarize your education and professional work experience.**

8 A. I have been employed as a Utility Analyst with the DOE since October 2022. Prior to the
9 DOE, I was employed at the NH Department of Transportation from 2018 until 2022 as a
10 Design Engineer. Prior to joining the State, I worked as a consulting engineer for several
11 private environmental consulting firms. Working as a consulting engineer, my daily tasks
12 included field construction supervision of contractors, design calculations in spreadsheets
13 and budgeting, assistant project management, managing client's needs, developing RFPs,
14 drafting engineering designs for water, wastewater, and solid waste projects, in addition to
15 technical report writing. I have a B.S. in Environmental Engineering from the University of
16 New Hampshire and a M.S. in Civil Engineering also from the University of New
17 Hampshire.

18 **Q. Ms. Nixon, please summarize your education and professional work experience.**

19 A. I joined the Public Utilities Commission (PUC or Commission) in August 2012 in the
20 Sustainable Energy Division working on renewable energy issues. I completed electric utility
21 rate training at New Mexico State University's Center for Public Utilities. In August 2016, I
22 became a Utility Analyst in the Electric Division at the PUC, which is now DOE. In January

1 2022, I became the Electric Director, in the Regulatory Support Division of the DOE. Prior
2 to the PUC, I was employed at the NH Department of Environmental Services, Air Quality
3 Division, from 1999 until 2012, in various positions. Prior to joining the State, I worked as a
4 consultant at ICF and AER*X, Inc. Throughout my career, I have focused on energy,
5 environmental, and economic issues and analysis. I earned a B.S. in Mathematics from the
6 University of Vermont. I have testified in the energy efficiency program dockets (DE 17-136
7 and DE 20-092), Liberty Utilities' battery storage pilot docket (DE 17-189), and Unitil
8 Energy System's distribution rate case (DE 21-030). In addition, I have provided
9 recommendations or testimony in several other dockets, including the grid modernization
10 docket (IR 15-296) and electric vehicle rate design dockets (IR 20-004 and DE 20-170).

11 **Q. Mr. Dudley, please summarize your education and professional work experience.**

12 A. I started at the New Hampshire Public Utilities Commission ("Commission" or "PUC") in
13 June of 2015 as a Utility Analyst in the Electric Division. Effective July 1, 2021, the Electric
14 Division was transferred to, and became part of, the newly created DOE, and I am presently
15 employed by that agency. Before joining the Commission, I was employed at the Vermont
16 Public Service Board (now known as the Vermont Public Utilities Commission, "VT-PUC")
17 for seven years as a Utility Analyst and Hearing Officer. In that position I was primarily
18 responsible for the analysis of financing and accounting order requests filed by all Vermont
19 utilities, including review of auditor's reports, financial projections, and securities analysis.
20 As a Hearing Officer, I managed and adjudicated cases involving a broad range of utility-
21 related issues including rate investigations, construction projects, energy efficiency, consumer
22 complaints, utility finance, condemnations, and telecommunications. Prior to working for the

1 VT-PUC, I worked in the commercial banking sector in Vermont for twenty years where I
2 held various management and administrative positions. My most recent role was as Vice
3 President and Chief Credit Officer for Lyndon Bank in Lyndonville, Vermont. In that
4 position I was responsible for directing and administering the analysis and credit risk
5 management of the bank's loan portfolio, including internal loan review, regulatory
6 compliance, audit, and coordinating periodic bank examinations by state and federal
7 regulators. I received my Bachelor of Arts degree in Political Science from St. Michael's
8 College. Throughout my career in banking, I took advantage of numerous Continuing
9 Professional Education (CPE) opportunities involving college level coursework in the areas
10 of accounting, financial analysis, real estate and banking law, economics, and regulatory
11 compliance. Also, during my tenure with the VT-PUC I took advantage of various CPE
12 opportunities including the Regulatory Studies Program at Michigan State University
13 (sponsored by the National Association of Regulatory Utility Commissioners "NARUC"),
14 Utility Finance & Accounting for Financial Professionals at the Financial Accounting
15 Institute, Standard & Poor's seminars on credit ratings for public utilities, and Scott
16 Hempling seminars on Electric Utility Law and Public Utility Regulation.

17 **Q. Mr. Toscano, please summarize your education and professional work experience.**

18 A. I am a licensed Professional Engineer (PE) in the State of New York and New Hampshire
19 and a Certified Energy Manager (CEM) through the Association of Energy Engineers (AEE).
20 I earned a Bachelor of Science degree in Mechanical Engineering Technology from the New
21 York Institute of Technology and an Associate's degree in Air Conditioning and Heating
22 Technology from Farmingdale University. I was employed for approximately three (3) years

1 by the Long Island Lighting Company (LILCO), an investor-owned utility, where I worked
2 as a Project Engineer for the implementation of energy efficiency and demand-side
3 management programs. My primary activities included advising large commercial and
4 industrial customers on demand reduction methods and the coordination of advanced
5 metering installations. I was employed for approximately thirty-three (33) years at the
6 Brookhaven National Laboratory (BNL) in various roles including as a Project Engineer,
7 Project Manager, Energy Manager, and the Manager of Energy Management and Utilities
8 Engineering. I joined the DOE's Regulatory Support Division in March 2022.

9 **Q. What is the purpose of your testimony in this proceeding?**

10 A. Our testimony provides comments and recommendations of the DOE regarding the 2024-
11 2026 New Hampshire Statewide Energy Efficiency Plan ("Plan" or "2024-2026 Plan") dated
12 June 30, 2023 filed jointly by the New Hampshire electric and gas utilities ("Utilities" or
13 "Joint Utilities"). The Utilities are Liberty Utilities (Granite State Electric) Corp. d/b/a
14 Liberty ("Liberty Utilities - Electric"), New Hampshire Electric Cooperative, Inc. ("NHEC"),
15 Public Service Company of New Hampshire d/b/a Eversource Energy ("Eversource"), Unitil
16 Energy Systems, Inc. ("UES"), EnergyNorth Natural Gas, Inc. d/b/a Liberty Utilities
17 ("Liberty Utilities - Gas"), and Northern Utilities, Inc. ("Northern").

18
19 **Summary**

20 **Q. Please summarize your testimony.**

21 A. DOE provides support for the Plan filed by the Utilities and recommends approval. DOE
22 specifically addresses the following topics in our testimony:

- 1 • Statutory Requirements, including but not limited to RSA 374-F:3, VI-a, as amended
2 by HB 549 and approved on February 24, 2022, including the requirement for
3 \$400,000 for education and outreach programs from SBC funds that are separate from
4 the utilities' program budget, the requirement that 20 percent of the system benefits
5 charge (SBC) funds collected should be spent on low income programs, and the
6 requirement that planned electric savings must be at least 65 percent of planned,
7 annual energy savings.
- 8 • Cost-Effectiveness, including the Granite State Test (GST) and Total Resource Cost
9 Test (TRC), the Avoided Energy Supply Cost (AESC) Study, and net savings
10 calculations documented in the Technical Resource Manual (TRM).
- 11 • Active Demand Response Programs.
- 12 • Performance Incentive.
- 13 • Planning Process for Next Three-Year Plan.

14
15 **Statutory Requirements**

16 **Q. Will your testimony cover the statutory and legal requirements regarding this docket?**

17 A. Given the September 7 PUC order requesting a legal brief, we only provide an overview of
18 some of the statutory and legal requirements. The forthcoming legal brief will go into more
19 detail regarding energy efficiency frameworks and statutory provisions.

20 **Q. Do you believe that the Utilities' Plan meets the applicable statutory requirements?**

21 A. Yes. We will explain in more detail as part of this testimony how we believe the Utilities'
22 Plan meets the applicable statutory requirements. We have included responses to data

1 requests provided by the Utilities that explain how they believe they have met these
2 requirements. We will focus first on the recent requirements that were part of HB 549 (2022),
3 but also address some other requirements.

4 **Q. RSA 374-F:3, VI-a(b) states that “up to \$400,000 from system benefits charge funds**
5 **collected annually shall be used to promulgate the benefits of energy efficiency**
6 **according to guidelines developed as specified in RSA 125-O:5-a, I(c) as determined by**
7 **the department of energy.” Have the Utilities accounted for the \$400,000?**

8 A. Yes. We have verified that the electric utilities propose to collect \$400,000 through the SBC
9 for marketing and education efforts to be used in accordance with guidelines as determined
10 by DOE and other stakeholders. The Plan provides the statewide summary for the program
11 funding less the \$400,000,¹ while the Utilities’ response to data request DOE 1-003, included
12 as Attachment DOE 1, provides the statewide calculation to demonstrate how the \$400,000 is
13 allocated as well as each respective utility’s annual amount of the \$400,000 funding. This
14 funding amount is not included in EE program budgets and therefore not included in the
15 Performance Incentive (PI) calculations. As shown, each electric utility’s sales forecast was
16 used to determine the portion of funding to be collected by each electric utility.

17 **Q. Does the Utilities’ Plan demonstrate that they meet RSA 374-F:3, VI-a(c), “No less than**
18 **20 percent of the portion of the funds collected from the system benefit charge for**
19 **energy efficiency shall be expended on low-income energy efficiency programs.”**

20 A. The Utilities make a statement in their Plan that they meet this requirement, but they do not
21 make a specific demonstration of such in the Plan. (See Bates p. 14 of the Plan.) However,

¹ See Bates page 23 of the Plan, which provides the statewide summary for program funding.

1 the Utilities have demonstrated in their response to a data request that they meet this
2 requirement. See the attached data response DOE 1-004 included as Attachment DOE 2.

3 **Q. Please explain how the Utilities meet RSA 374-F:3, VI-a (d)(1), which lists the various**
4 **funding sources for the energy efficiency programs.**

5 A. The Plan provides descriptions for each funding source, which include the SBC, Regional
6 Greenhouse Gas Initiative (RGGI) funds, Forward Capacity Market (FCM), local distribution
7 adjustment charge (LDAC), and carryover.² The statewide aggregated budgets are also
8 described in the Plan. Attachments E3 through H3 and J3 of the Plan list the funding sources
9 and show the calculations for each utility’s budget.³ See the attached data response DOE 1-
10 005 included as Attachment DOE 3.

11 **Q. Does the Plan meet the requirements of RSA 374-F:3, VI-a(d)(5) relating to the**
12 **Evaluation, Measurement, and Verification (EM&V) study funds?**

13 A. As shown in the Plan,⁴ the budget for EM&V ranges annually from 2.2% - 3.8% or total of
14 3.1% over the Plan and does not exceed the 5% cap of RSA 374-F:3, VI-a(d)(5). The
15 proposed EM&V studies helps to ensure that the savings claimed by the utilities are accurate
16 and reflective of actual program intervention and therefore reflect an appropriate use of
17 ratepayer funds and provide recommendations for improving the energy efficiency programs’
18 design and deployment. This information is contained on Bates pages 97-100 of the Plan.
19 The Utilities also explain how the EM&V funds will be optimized “to secure funds available

² See Bates pp. 23-27 in the Plan.

³ Note that DOE was unable to find the attachment for Liberty-Gas that shows the funding and budget calculations in Attachment I, but the total budgets are presented in the Plan as well as the associated rates in Liberty Gas’ testimony in Attachment K.

⁴ See Table 7-1 on Bates p. 100 of the Plan.

1 from wholesale energy and ancillary markets.” The Plan’s EM&V efforts enable the savings
2 from NHSaves programs to be bid into the FCM, as discussed on Bates 655, which allows
3 them to access an additional funding stream for the programs. See the data response DOE 1-
4 007 included as Attachment DOE 4.

5 **Q. Per the Commission’s Order commencing this docket, does the Joint Utilities’ Plan**
6 **offer benefits consistent with RSA 374-F’s policy “to develop a more efficient industry**
7 **structure and regulatory framework that results in a more productive economy by**
8 **reducing costs to consumers while maintaining safe and reliable electric service with**
9 **minimum adverse impacts on the environment. RSA 374-F:1”?**

10 A. Yes. Please refer to the Utilities’ response to data request DOE 1-001 included as Attachment
11 DOE 5. As stated, the Joint Utilities’ Plan for the NHSaves programs is to offer benefits
12 consistent with these provisions since these programs are available to all retail customers in
13 NH and promote awareness of energy use and conservation. Further, the total program
14 portfolio for all utilities combined has a benefit cost ratio of 2.27.⁵

15 **Q. Does the proposed Plan contain programs that are targeted to minimize distribution**
16 **costs pursuant to RSA 374-F:4, VIII(e)?**

17 A. According to the Utilities, the Plan does not contain any “geotargeted” programs designed to
18 address specific distribution system constraints. See data response DOE 1-010 included as
19 Attachment DOE 6. DOE, however, believes that the active demand response programs will
20 assist in minimizing distribution costs, in general, since these programs target the peak

⁵ Bates pp. 9-14 of the Plan provides an overview of these benefits.

1 demand period, which will in turn help reduce constraints and potential future costs on the
2 distribution system.

3 **Q. Pursuant to RSA 374-F:4, VIII-a, does the Plan include “program design, and/or**
4 **enhancements, and estimated participation that maximize energy efficiency benefits to**
5 **public schools, including measures ...to improve indoor air quality”?**

6 A. Yes. Through the Municipal program offerings, the electric utilities have historically and will
7 continue to offer dedicated funding for municipalities and their schools to access technical
8 assistance, funding, and incentives to pursue energy efficiency projects. If funding within the
9 Municipal program is fully expended, public schools are eligible for their projects to be
10 served by the NHSaves C&I programs to ensure they continue to have access to technical
11 assistance and energy efficiency measures, including those that result in improved indoor air
12 quality because of the reduction of fossil fuel use, application of high efficiency air
13 conditioning, tightening of building shell, etc. While the energy efficiency programs offered
14 by the Gas Utilities have historically provided similar support to municipalities and public
15 schools throughout the state, the 2024-2026 Plan proposes a dedicated Municipal program
16 for the two Gas Utilities (Liberty-Gas and Northern). As with the electric portfolio, public
17 schools served by the Gas Utilities will be eligible to utilize the Large and Small C&I
18 programs should Municipal program funding be exhausted during the term. Table 3-2 on
19 Bates p. 47 summarizes the municipal programs, including the program budgets, annual and
20 lifetime savings, and demand reductions (in kilowatts) for the electric utilities, and the
21 number of participants. For more details, please refer to Bates pages 38-39 and 44-47 of the
22 Plan and data request DOE 1-011 included as Attachment DOE 7.

1 **Cost-Effectiveness**

2 **Q. Please describe the cost-effectiveness tests that the Utilities use in the 2024-2026 Plan**
3 **filing.**

4 A. The Plan uses the Granite State Test (GST) as the primary test and the Total Resource Cost
5 Test (TRC) as the secondary test. These tests use the latest Avoided Energy Supply Cost
6 Study⁶ for New England as the basis as well as Evaluation, Measurement, and Verification
7 (EM&V) Studies, which are summarized in the Technical Resource Manual (TRM)⁷
8 prepared by the Utilities with assistance from the EM&V Working Group (consisting of the
9 utilities, DOE, a stakeholder representative, and the DOE consultant). As shown in the TRM,
10 the savings impacts associated with free ridership are taken into account. See Attachment
11 DOE 8, which includes the Utilities' explanation of how the Plan meets these requirements in
12 their response to data request DOE 1-006.

13 **Q. Do all of the programs have a benefit/cost test ratio in the GST primary test greater**
14 **than one?**

15 A. Yes. All of the programs shown for the cumulative three years of the proposed Plan have
16 benefit/cost ratios greater than 1.0 except for one—NHEC's municipal program which has an
17 estimated B/C ratio for the GST of 0.66. RSA 125-O:23, III. (b) requires that up to
18 \$2,000,000 annually from the Regional Greenhouse Gas Initiative (RGGI) funds be offered
19 for municipal program and local government programs. As noted in the Plan filing, these
20 municipal energy efficiency projects provide assistance to towns and schools to "reduce their

⁶ See Attachment R in the 2024-2026 Plan filing starting on Bates p. 677.

⁷ See Attachment T in the 2024-2026 Plan filing starting on Bates p. 1104.

1 buildings' energy costs, often a large component of their operations and maintenance
2 ("O&M") budgets, allowing them to redirect the savings toward other public services."⁸ The
3 benefits of being able to redirect public dollars toward other services or even reduce local
4 property taxes are not captured in the benefit/cost calculation presented. As noted in RSA
5 374-F:3, VI-a, (d)(4), the benefit/cost ratio is only one of many factors to consider when
6 prioritizing programs. DOE recommends approval of these programs given that these
7 programs have a benefit/cost ratio greater than one and/or provide additional benefits beyond
8 those captured in the benefit-cost test.

9 **Q. Does the benefit/cost ratio shown for the total portfolio of programs include all of the**
10 **utility costs including the performance incentive?**

11 A. The benefit/cost ratio is calculated and shown for the total portfolio of programs on the tables
12 calculating the performance incentive since the performance incentive is based on the total
13 portfolio of programs.

14 **Q. Is the benefit/cost ratio for the total portfolio of programs greater than one for all**
15 **utilities?**

16 A. As shown by the utilities in Attachments E1-J1, page 10 of 12 and as summarized in Table 1
17 below, the benefit/cost ratio for the total portfolio of programs for all utilities is greater than
18 one without the inclusion of the performance incentive. As shown by the utilities in
19 Attachments E1-J1, page 12 of 12, the benefit/cost ratio for the total portfolio of programs
20 for all utilities is greater than one with the inclusion of the performance incentive.⁹

⁸ See Bates p. 39 in the Utilities' 2024-2026 Plan.

⁹ See Bates pp. 155, 163, 213, 215, 252, 254, 277, 279, 309, 311, 329, and 331 in the Utilities' 2024-2026 Plan.

Please note that the costs used in each of the benefit/cost calculations with and without PI is different year dollars, so these benefit/cost ratios cannot be compared without making the year dollars similar.

1
2 Table 1. Summary of Benefit/Cost Ratio
3 for Total Portfolio
4

Utility	2024-2026 Total Portfolio Benefit/Cost Ratio (Excluding Planned Performance Incentive)
Eversource	2.41
Liberty-Electric	2.05
NHEC	2.82
Unitil	1.61
Liberty (Gas)	1.88
Northern	1.83

5
6 **Q. Please provide more explanation regarding the Technical Resource Manual (TRM).**

7 A. The Utilities and the EM&V working group have developed and continue to update the TRM
8 to document the savings calculations for each program and the associated measures. The
9 TRM considers EM&V studies conducted in New Hampshire, and also uses EM&V studies
10 conducted in other states to inform the assumptions for New Hampshire. The TRM is the
11 foundation for New Hampshire's energy efficiency programs. The TRM includes such
12 factors as peak coincidence factors, realization rates, free ridership,¹⁰ and other assumptions
13 to consider when determining the net savings. The net savings calculation takes these factors
14 into account. The TRM (and the underlying assumptions from EM&V studies) are a
15 fundamental part of the energy efficiency programs, because it not only provides consistent
16 calculation methodologies across the utilities' programs and individual projects and

¹⁰ Free riders are individuals who would be willing to adopt an idea or measure with minimal or no incentive to do so. These consumers would most likely have adopted the energy efficiency product/service on their own.

1 measures, but through the use of the EM&V studies, the actual savings are verified and then
2 incorporated into future program plans.

3 **Q. Do you have any additional comments regarding the cost-effectiveness tests?**

4 A. Yes, as we stated above, DOE plans to file a legal brief per the PUC Order of September 7,
5 2023, which will provide more detail regarding the cost-effectiveness tests and associated
6 assumptions and methodologies.

7 **Active Demand Response Programs**

8 **Q. Have you reviewed the proposed Active Demand Response (ADR) program?**

9 A. Yes. The Department had several discussions with the Utilities prior to the submission of the
10 Plan. Those discussions covered the overall program, the Performance Incentives (PI), going
11 from the pilot to full program, and the methodologies used to calculate/determine the demand
12 reduction performance and estimated savings. We were particularly interested in the PI
13 calculation and how the financial impact (savings) are determined. After the Plan was
14 submitted, the Department carefully evaluated the ADR section (Chapter 5) and Attachment
15 Q in the Plan. The PI for ADR programs will be discussed in other portions of this
16 testimony.

17 **Q. Does the Department support the ADR program transitioning from a pilot to the full
18 program?**

19 A. Yes. The Department is generally supportive of the transition to a full program. We came to
20 this conclusion from our discussions with the Utilities review of the Plan, responses to our
21 data requests (DRs), and review of some of the ADR Energy and Measurement Verification
22 (EM&V) studies referenced in Attachment Q. Several ADR EM&V studies have been

1 completed for the New England area, with one specifically including NH that was completed
2 in 2019, and one follow-up study that includes NH that will evaluate 2023 performance. This
3 study is expected to be completed in early 2024.

4 **Q. Given the ADR EM&V follow-up study is not due to be completed until after the new**
5 **Plan is in effect, does the Department believe the full program should be delayed until**
6 **the results are provided?**

7 A. No, as noted in the previous response there is considerable supporting material in the
8 referenced ADR EM&V studies to support going forward with a full ADR program. Further,
9 Department staff have experience in other jurisdictions regarding the effectiveness of ADR
10 programs that provides additional comfort with this recommendation.

11 **Q. How did you determine the estimated demand reduction savings methodology is**
12 **reasonable?**

13 A. DOE spent time reviewing the Benefit-Cost (BC) models for ADR, which are based on the
14 Granite State Test (GST) and the most recent versions of the Avoided Energy Supply Cost
15 (AESC) Report, Appendices, and Supplements. Both the GST and AESC are well-vetted,
16 comprehensive tools to estimate savings. The AESC utilizes models based on ISO-NE load
17 forecasts and other relevant load and cost data. The AESC and GST methodologies account
18 for the compound effects of demand reduction on transmission, distribution, capacity, and
19 energy supply costs. DOE believes the overall assumptions and methodologies used for
20 determining/estimating ADR savings are reasonable.

21 **Q. Do you have any general concerns or recommendations regarding ADR programs?**

1 A. The Department is keenly interested in the results of the ADR EM&V follow-up study
2 expected to be completed in early 2024. As previously stated, this report will evaluate the
3 2023 ADR pilot study for NH. Presently, we do not have concerns. However, depending on
4 the results of the study, we may develop recommendations for future ADR programs.

5
6 **Performance Incentive (PI)**

7 **Q. What changes were made to the performance incentive calculation for energy efficiency**
8 **programs prior to the last plan update approved by the Commission?**

9 A. In Order No. 26,095 in Docket No. 17-136, the Commission approved a Settlement
10 Agreement (Settlement) for the 2018-2020 Plan which provided for the creation of a working
11 group to review potential modifications to the calculation of performance incentive for year
12 2020. The Performance Incentive Working Group (PIWG) was established in January 2018
13 to review potential PI calculation methodologies that could further promote the achievement
14 of energy efficiency goals established under the New Hampshire Energy Efficiency Resource
15 Standard (EERS). The PIWG met in monthly sessions during January-December 2018 and
16 January-July 2019, resulting in the development of a new PI framework which disaggregates
17 the calculation of PI into five performance components: 1) lifetime kWh savings, 2) annual
18 kWh savings, 3) summer peak demand savings, 4) winter peak demand savings, and 5)
19 value/benefits. A similar PI framework was developed for gas consisting of three
20 performance components: lifetime MMBtu savings, annual MMBtu savings, and Value. A
21 report summarizing the conclusions and recommendations of the working group, *NH Energy*
22 *Efficiency Calculation of Performance Incentive Beginning in 2020, dated July 31, 2019*

1 (PIWG Report) was prepared and issued. The Commission approved the new PI framework
2 in Order No. 26,323, dated December 31, 2019 in Docket No. 17-136. The new PI
3 framework became fully implemented during the triennium plan for 2021-2023.

4 **Q. Please describe the mission of the PIWG and how it arrived at establishing the existing**
5 **minimum PI thresholds.**

6 A. As stated above, the PIWG was established by the Commission in Order No. 26,095 in
7 Docket No. 17-136. Our understanding of the PIWG's assignment was to undertake a
8 comprehensive review of potential PI methodologies that could further promote the
9 achievement of New Hampshire's EERS goals, with the objective of implementing any
10 changes to the performance incentive calculation beginning in the 2020 program year.
11 During the course of the PIWG's review, it became clear that developing a more
12 comprehensive and transparent PI methodology to better encourage greater savings within
13 key metric areas was the appropriate path to follow. The end product was the existing PI
14 methodology which seeks to encourage greater performance in the five key metric areas:
15 Lifetime kWh savings, Annual kWh savings, Summer Peak Demand savings, Winter Peak
16 Demand savings, and Net Benefits. Discussions leading up to consensus on the new
17 framework were extensive, and at times, contentious. A significant amount of time and work
18 went into developing the finalized methodology. One of the more controversial issues
19 involved establishing the minimum threshold amounts for all five of the performance
20 components. During the final phase of the PIWG's discussions in 2019, PUC Staff (now
21 DOE) circulated a proposal, based on recommendations from several consultants advising the
22 working group, to increase the minimum PI savings threshold from 65 percent to 75 percent

1 for all PI components included in the new PI matrix. Ultimately, in a give-and-take fashion
2 similar to that of settlement negotiations, the Utilities, stakeholders, and Staff reached an
3 agreement in principle to a modified structure for the new PI matrix whereby the 75 percent
4 savings threshold would apply to the Lifetime kWh Savings, Annual kWh Savings, and Net
5 Benefit/Value PI components, and the 65 percent savings threshold would apply to the
6 Summer Peak Demand and Winter Peak Demand components. Likewise for gas, the
7 thresholds for lifetime MMBtu savings, annual MMBtu savings, and Value were all
8 increased to 75 percent.

9 **Q. Have the Utilities proposed any modifications to the PI framework approved in DE 17-**
10 **136 as part of the proposed 2024-2026 Plan?**

11 A. Yes. The utilities will continue to utilize the existing PI framework and related requirements
12 but with three proposed changes. First, the Utilities have proposed to integrate the benefits
13 achieved from the ADR program into the Net Benefits component of the PI matrix to include
14 those benefits as part of the PI calculation going forward since the ADR program is no longer
15 proposed as a pilot program. The Utilities estimate that this integration of the benefits
16 achieved from the ADR program will contribute approximately 3.7 percent to the planned net
17 benefits which in turn becomes part of the 35 percent weighting for this component. This
18 equates to approximately 2.7 percent of the overall planned portfolio of PI achievement.¹¹
19 The percentage contribution of the ADR program to planned net benefits was derived from

¹¹ See Attachment DOE 9, which is Response *DOE 1-019*.

1 data contained in the 2021 Avoided Energy Supply Cost (AESC) study related to avoided
2 capacity costs.¹²

3 Second, the Utilities propose to continue to file their annual reports on June 1 with the
4 Commission, however, the PI calculations will be illustrative based on progress against
5 annual benchmarks. The Utilities will book PI each year based on the estimated amounts but
6 with a true-up to actual performance being performed at the end of the three-year term of the
7 Plan.¹³

8 Third, in Docket DE 20-092, the DOE expressed concerns that a separate performance
9 incentive associated with Eversource's SmartSTART program was no longer necessary since
10 Eversource was adequately incentivized through the PI provided by the energy efficiency
11 programs. The SmartSTART program was initiated in the early 2000's as an on-bill
12 financing program for municipalities that provides municipal customers with the opportunity
13 to install energy saving measures with no upfront costs and the ability to pay for the
14 measures over time on their electric bill. SmartSTART provides a separate annual PI
15 payment separate from and in addition to the overall PI calculation, based on 6 percent of the
16 amount of total loan repayments received. Given that the program is now mature and has
17 been successful within its target market, DOE has recommended that this separate PI
18 mechanism is no longer needed and should be eliminated in the next triennium plan. The
19 Commission agreed with and supported the DOE's recommendation in Order No. 26,621,
20 Docket DE 20-092, at 27. At a technical session held on July 27, 2023, DOE raised this issue

¹² Id.

¹³ See Attachment DOE 10, which is Response *DOE 1-012*.

1 with Eversource, and Eversource agreed to terminate the performance incentive associated
2 with the SmartSTART program as part of this 2024-2026 Plan.¹⁴

3 **Q. What is the Department's recommendation involving the utilities PI modifications?**

4 A. The Department supports the modifications as proposed by the utilities and does not find the
5 proposals to be a major change to the way in which PI is calculated. Integrating the benefits
6 provided by the ADR program into the net benefits metric seems reasonable and appropriate
7 given that ADR is now moving from a pilot program into a full-fledged program. In addition,
8 the ADR benefit calculations are based on the 2021 AESC like the other benefit calculations.
9 Likewise, the utilization of PI estimates in the Utilities' annual reporting does not represent a
10 significant alteration of the way PI is calculated given that the existing PI framework is still
11 to be followed, which continues to impose the 125 percent cap on PI earned and includes a
12 true-up mechanism to be applied at the end of the Plan period to insure proper verification
13 and reconciliation of those amounts. In terms of the separate PI for the SmartSTART
14 program, as described above, Eversource and DOE reached agreement to permanently
15 discontinue that incentive starting with this 2024-2026 Plan, and the Commission has already
16 approved such change.

17
18 **Proposed Planning Process for Next Three-Year Energy Efficiency Plan**

19 **Q. What does DOE propose for the planning process for the next three-year plan?**

20 A. DOE proposes a process similar to that used for the 2021-2023 three-year plan in which DOE
21 hires a consultant to facilitate a stakeholder planning process and also to provide advice and

¹⁴ See Attachment DOE 11, which is Response which is DOE 1-021.

1 suggestions for improvements and other options regarding energy efficiency programs for
2 New Hampshire. At the first planning meeting, stakeholders could determine the various
3 topics and issues to be discussed and explored during the planning process.

4 **Q. What are the estimated costs for the consultant?**

5 A. Based on the cost of the consultant for the planning process for the 2021-2023 plan,¹⁵ DOE
6 estimates that a consultant would cost about \$375,000 for about a two-year time period.

7
8 **Conclusion**

9 **Q. What do you recommend regarding the Utilities' 2024-2026 Plan?**

10 A. DOE recommends approval of the Plan as discussed above. Specifically, DOE recommends
11 approval as follows:

- 12 • The Plan meets statutory and regulatory requirements.
- 13 • The Plan appropriately used the Granite State Test as the primary test and the Total
14 Resource Cost Test as the secondary test for evaluating cost-effectiveness.
- 15 • The benefit/cost ratio for the proposed portfolio, including both residential and
16 commercial sectors, for the 2024-2026 Plan exceed 1.0 for all the electric and gas
17 utilities.
- 18 • The benefit/cost ratio for all of the programs for the 2024-2026 Plan exceed 1.0,
19 except for one – NHEC's municipal program. Per RSA 125-O:23, III. (b), RGGI
20 dollars fund the programs for municipalities. Also, the municipalities as well as the

¹⁵ The contract for the planning consultant for the 2021-2023 plan was not to exceed \$250,000 for about a 16-month time period, but a longer planning process would be more beneficial.

1 residences and businesses in the municipalities will benefit from the municipal
2 programs beyond what is included in the benefits quantified. Therefore, all of the
3 programs proposed should be approved because they either show a B/C ratio of
4 greater than 1.0 or they provide benefits beyond that represented in the B/C ratio.

- 5 • DOE supports approval of the active demand response programs as full programs.
- 6 • DOE supports approval of the performance incentive as proposed including the
7 incorporation of the benefits from the active demand response program in the net
8 benefits portion of the formula and also the elimination of a performance incentive
9 for Eversource's Smart Start Program.
- 10 • DOE proposes the initiation of a stakeholder process and the hiring of a consultant to
11 assist with the planning process for the next three-year plan.

12 In summary, DOE supports the approval of the Utilities' 2024-2026 Plan as described above.

13 **Q. Do you have anything else that you would like to mention regarding this testimony?**

14 A. Yes. On Monday, September 11, 2023, the day before intervenor testimony was due, the
15 Utilities submitted a revised Plan. DOE did not review that filing prior to writing and
16 submitting this testimony. Therefore, this testimony does not take into consideration that
17 September 11, 2023 filing.

18 **Q. Does that conclude your testimony?**

19 A. Yes.

20

New Hampshire Utilities
Docket No. DE 23-068

Date Request Received: August 04, 2023
Data Request No. DOE 1-003

Date of Response: August 15, 2023
Page 1 of 1

Request from: Department of Energy

Request:

Pursuant to RSA 374-F:3, VI-a(b), "Up to \$400,000 of system benefits charge funds collected annually shall be used to promulgate the benefits of energy efficiency according to guidelines developed as specified in RSA 125-O:5-a, I(c) as determined by the department of energy."

- a. Please provide a calculation, and the live excel spreadsheet, showing that this provision will be met.
- b. Please list any references to any page numbers, etc. where the plan addresses compliance with this provision.

Response:

The Electric Utilities have accounted for the collection and reallocation of \$400,000 annually, as stated on Bates page 14, for the NH DOE to utilize pursuant to RSA 374-F:3, VI-a(b), and have ensured these funds are not counted within the NHSaves program budgets. Table 1-7 on Bates page 23 provides the statewide summary for program funding, while Excel Attachment DOE 1-003 provides the annual amounts for each respective utility as well as the statewide calculation to demonstrate the allocation of \$400,000 annually for the NH DOE. The share that each utility has allocated to the annual \$400,000 was based on each utility's forecasted sales as a share of the statewide total. The sales forecasts were estimates as of mid-May 2023 and have been revised in some cases and may be revised further in the System Benefits Charge ("SBC") calculations to be filed on December 1, 2023. The amount allocated for NH DOE will still amount to \$400,000 annually regardless of any adjustments to utility allocation.

Data Request DOE 1-003

Dated 8/04/2023

Attachment DOE 1-003

	Year	RSA 125-O:5-a Funding	Share of Funding	Forecasted Sales (MWh)	Share of Sales
System Benefits Charge ("SBC") Calculation attachment (E3, F3, G3, H3) column					
	Col. A	Col. C		Col. I	
Eversource	2024	\$ 292,545.57	73%	7,762,885	73%
Liberty	2024	\$ 35,238.93	9%	920,392	9%
NHEC	2024	\$ 29,874.13	7%	792,729	7%
Unitil	2024	\$ 42,341.37	11%	1,123,556	11%
		<u>\$ 400,000.00</u>	<u>100%</u>	<u>10,599,562</u>	<u>100%</u>
Eversource	2025	\$ 292,140.13	73%	7,716,150	73%
Liberty	2025	\$ 35,839.08	9%	935,088	9%
NHEC	2025	\$ 30,141.70	8%	796,118	8%
Unitil	2025	\$ 41,879.08	10%	1,106,131	10%
		<u>\$ 400,000.00</u>	<u>100%</u>	<u>10,553,486</u>	<u>100%</u>
Eversource	2026	\$ 292,308.04	73%	7,708,603	73%
Liberty	2026	\$ 35,984.95	9%	948,997	9%
NHEC	2026	\$ 30,311.60	8%	799,363	8%
Unitil	2026	\$ 41,395.41	10%	1,091,659	10%
		<u>\$ 400,000.00</u>	<u>100%</u>	<u>10,548,622</u>	<u>100%</u>

**New Hampshire Utilities
Docket No. DE 23-068**

**Date Request Received: August 04, 2023
Data Request No. DOE 1-004**

**Date of Response: August 15, 2023
Page 1 of 1**

Request from: Department of Energy

Request:

Pursuant to RSA 374-F:3, VI-a(c), "No less than 20 percent of the portion of the funds collected from the system benefit charge for energy efficiency shall be expended on low-income energy efficiency programs."

- a. Please provide a calculation, and the live excel spreadsheet, showing that this provision has been met.
- b. Please list any references to any page numbers, etc. where the plan addresses compliance with this provision.

Response:

Please refer to Excel Attachment DOE 1-004 for the requested Excel calculation, demonstrating compliance with RSA 374-F:3, VI-a(c). Compliance with this statute was stated on Bates page 14 of the Plan filing.

Eversource

			2024 Funding		HEA Allocation	HEA Program Funds
	Total Funding	PI Pool ²	Program Funding			
Revenue: SBC ¹	\$ 44,499,303.54	\$ 2,318,304.92	\$ 42,150,998.62		20.0%	\$ 8,430,199.72
Revenue: FCM	\$ 3,370,946.61	\$ 175,736.55	\$ 3,195,210.05		20.0%	\$ 639,042.01
Revenue: RGGI	\$ 1,871,052.11	\$ 97,543.00	\$ 1,773,509.11		18.2%	\$ 322,838.16
Carryforward: HEA	\$ 635,864.56	\$ 33,149.34	\$ 602,715.22		100.0%	\$ 602,715.22
Carryforward: Non-HEA	\$ 2,543,458.23	\$ 132,597.35	\$ 2,410,860.88		0.0%	\$ -
Interest	\$ 659,344.97	\$ 34,373.43	\$ 624,971.53		20.0%	\$ 124,994.31
SmartSTART			\$ 30,000.00			
Total	\$ 53,579,970.01	\$ 2,791,704.60	\$ 50,788,265.42			\$ 10,119,789.42

			2025 Funding		HEA Allocation	HEA Program Funds
	Total Funding	PI Pool ²	Program Funding			
Revenue: SBC ¹	\$ 46,236,242.51	\$ 2,408,856.24	\$ 43,797,386.27		20.0%	\$ 8,759,477.25
Revenue: FCM	\$ 3,325,117.62	\$ 173,347.36	\$ 3,151,770.25		20.0%	\$ 630,354.05
Revenue: RGGI	\$ 1,852,406.44	\$ 96,570.95	\$ 1,755,835.49		17.4%	\$ 305,164.54
Carryforward: HEA	\$ 1,199,424.98	\$ 62,529.26	\$ 1,136,895.71		100.0%	\$ 1,136,895.71
Carryforward: Non-HEA	\$ 2,797,699.91	\$ 145,851.65	\$ 2,651,848.25		0.0%	\$ -
Interest	\$ 369,981.90	\$ 19,288.16	\$ 350,693.74		20.0%	\$ 70,138.75
SmartSTART			\$ 30,000.00			
Total Funding	\$ 55,780,873.35	\$ 2,906,443.63	\$ 52,874,429.71			\$ 10,902,030.30

			2026 Funding		HEA Allocation	HEA Program Funds
	Total Funding	PI Pool ²	Program Funding			
Revenue: SBC ¹	\$ 47,423,943.74	\$ 2,470,774.32	\$ 44,923,169.42		20.0%	\$ 8,984,633.88
Revenue: FCM	\$ 3,211,400.20	\$ 167,418.97	\$ 3,043,981.23		20.0%	\$ 608,796.25
Revenue: RGGI	\$ 1,916,718.22	\$ 99,923.70	\$ 1,816,794.52		20.2%	\$ 366,123.57
Carryforward: HEA	\$ 1,544,571.61	\$ 80,522.69	\$ 1,464,048.92		100.0%	\$ 1,464,048.92
Carryforward: Non-HEA	\$ 3,683,260.80	\$ 192,018.34	\$ 3,491,242.46		0.0%	\$ -
Interest	\$ 107,445.12	\$ 5,601.40	\$ 101,843.72		20.0%	\$ 20,368.74
SmartSTART			\$ 30,000.00			
Total Funding	\$ 57,887,339.69	\$ 3,016,259.42	\$ 54,871,080.28			\$ 11,443,971.36

Notes: (1) SBC Revenue net of RSA 125-O:5-a funds
 (2) PI net of SmartSTART funding

GSE

	Total Funding	PI Pool	2024 Funding		HEA Allocation	HEA Program Funds
			Program Funding			
Revenue: SBC ¹	\$ 5,360,216.71	\$ 279,442.58	\$ 5,080,774.13		20.0%	\$ 1,016,154.83
Revenue: FCM	\$ 284,546.40	\$ 14,834.17	\$ 269,712.23		20.0%	\$ 53,942.45
Revenue: RGGI	\$ 212,736.73	\$ 11,090.54	\$ 201,646.19		18.3%	\$ 36,986.65
Carryforward: HEA ²	\$ 172,522.74	\$ 8,994.08	\$ 163,528.66		100.0%	\$ 163,528.66
Carryforward: Non-HEA ²	\$ 471,533.39	\$ 24,582.31	\$ 446,951.08		0.0%	\$ -
Total	\$ 6,501,555.97	\$ 338,943.68	\$ 6,162,612.29			\$ 1,270,612.58

	Total Funding	PI Pool ²	2025 Funding		HEA Allocation	HEA Program Funds
			Program Funding			
Revenue: SBC ¹	\$ 5,672,155.85	\$ 295,704.81	\$ 5,376,451.04		20.0%	\$ 1,075,290.21
Revenue: FCM	\$ 302,781.89	\$ 15,784.84	\$ 286,997.05		20.0%	\$ 57,399.41
Revenue: RGGI	\$ 210,600.55	\$ 10,979.18	\$ 199,621.37		17.5%	\$ 34,961.83
Carryforward: HEA ²	\$ 70,260.67	\$ 3,662.88	\$ 66,597.79		100.0%	\$ 66,597.79
Carryforward: Non-HEA ²	\$ 281,042.68	\$ 14,651.51	\$ 266,391.16		20.0%	\$ 53,278.23
Total Funding	\$ 6,536,841.63	\$ 340,783.21	\$ 6,196,058.42			\$ 1,287,527.48

	Total Funding	PI Pool ²	2026 Funding		HEA Allocation	HEA Program Funds
			Program Funding			
Revenue: SBC ¹	\$ 5,838,308.09	\$ 304,366.77	\$ 5,533,941.32		20.0%	\$ 1,106,788.26
Revenue: FCM	\$ 323,041.52	\$ 16,841.03	\$ 306,200.49		20.0%	\$ 61,240.10
Revenue: RGGI	\$ 217,968.57	\$ 11,363.29	\$ 206,605.28		20.2%	\$ 41,945.74
Carryforward: HEA ²	\$ 35,130.33	\$ 1,831.44	\$ 33,298.90		100.0%	\$ 33,298.90
Carryforward: Non-HEA ²	\$ 140,521.34	\$ 7,325.76	\$ 133,195.58		0.0%	\$ -
Total Funding	\$ 6,554,969.85	\$ 341,728.29	\$ 6,213,241.56			\$ 1,243,272.99

Notes: (1) SBC Revenue net of RSA 125-O:5-a funds
 (2) Interest within Carryforward balances

ENNG

	Total Funding	PI Pool	2024 Funding		HEA Allocation	HEA Program Funds
			Program Funding			
Revenue: LDAC	\$ 10,157,197.59	\$ 529,522.15	\$ 9,627,675.44		20.0%	\$ 1,925,535.09
Carryforward: HEA ¹	\$ -	\$ -	\$ -		0.0%	\$ -
Carryforward: Non-HEA ¹	\$ 315,353.00	\$ 16,440.20	\$ 298,912.80		20.0%	\$ 59,782.56
Total	\$ 10,472,550.59	\$ 545,962.35	\$ 9,926,588.24			\$ 1,985,317.65

	Total Funding	PI Pool ²	2025 Funding		HEA Allocation	HEA Program Funds
			Program Funding			
Revenue: LDAC	\$ 10,698,140.11	\$ 557,722.94	\$ 10,140,417.17		20.0%	\$ 2,028,083.43
Carryforward: HEA ¹	\$ -	\$ -	\$ -		0.0%	\$ -
Carryforward: Non-HEA ¹	\$ -	\$ -	\$ -		0.0%	\$ -
Total Funding	\$ 10,698,140.11	\$ 557,722.94	\$ 10,140,417.17			\$ 2,028,083.43

	Total Funding	PI Pool ²	2026 Funding		HEA Allocation	HEA Program Funds
			Program Funding			
Revenue: LDAC	\$ 11,042,646.97	\$ 575,683.02	\$ 10,466,963.95		20.0%	\$ 2,093,392.79
Carryforward: HEA ¹	\$ -	\$ -	\$ -		0.0%	\$ -
Carryforward: Non-HEA ¹	\$ -	\$ -	\$ -		0.0%	\$ -
Total Funding	\$ 11,042,646.97	\$ 575,683.02	\$ 10,466,963.95			\$ 2,093,392.79

(1) Interest within Carryforward balances

NHEC - Revised

	2024 Funding				
	Total Funding	PI Pool	Program Funding	HEA Allocation	HEA Program Funds
Revenue: SBC ¹	\$ 4,544,173.71	\$ 236,900.05	\$ 4,307,273.66	20.0%	\$ 861,454.73
Revenue: FCM	\$ 100,000.00	\$ 5,213.27	\$ 94,786.73	20.0%	\$ 18,957.35
Revenue: RGGI	\$ 213,076.36	\$ 11,108.25	\$ 168,772.26	19.7%	\$ 33,195.86
Carryforward: HEA ²	\$ 106,885.19	\$ 5,572.21	\$ 101,312.97	100.0%	\$ 101,312.97
Carryforward: Non-HEA ²	\$ 701,942.81	\$ 36,594.18	\$ 665,348.64	0.0%	\$ -
Total	\$ 5,666,078.08	\$ 295,387.96	\$ 5,337,494.26		\$ 1,014,920.91

	2025 Funding				
	Total Funding	PI Pool²	Program Funding	HEA Allocation	HEA Program Funds
Revenue: SBC ¹	\$ 4,770,447.10	\$ 248,696.29	\$ 4,521,750.81	20.0%	\$ 904,350.16
Revenue: FCM	\$ 100,000.00	\$ 5,213.27	\$ 94,786.73	20.0%	\$ 18,957.35
Revenue: RGGI	\$ 211,159.12	\$ 11,008.30	\$ 168,772.26	18.6%	\$ 31,378.57
Carryforward: HEA ²	\$ 106,885.19	\$ 5,572.21	\$ 101,312.97	100.0%	\$ 101,312.97
Carryforward: Non-HEA ²	\$ 701,942.81	\$ 36,594.18	\$ 665,348.64	0.0%	\$ -
Total Funding	\$ 5,890,434.22	\$ 307,084.25	\$ 5,551,971.41		\$ 1,055,999.05

	2026 Funding				
	Total Funding	PI Pool²	Program Funding	HEA Allocation	HEA Program Funds
Revenue: SBC ¹	\$ 4,918,180.46	\$ 256,398.03	\$ 4,661,782.42	20.0%	\$ 932,356.48
Revenue: FCM	\$ 100,000.00	\$ 5,213.27	\$ 94,786.73	20.0%	\$ 18,957.35
Revenue: RGGI	\$ 217,771.98	\$ 11,353.04	\$ 168,772.26	22.3%	\$ 37,646.68
Carryforward: HEA ²	\$ 106,885.19	\$ 5,572.21	\$ 101,312.97	100.0%	\$ 101,312.97
Carryforward: Non-HEA ²	\$ 701,942.81	\$ 36,594.18	\$ 665,348.64	0.0%	\$ -
Total Funding	\$ 6,044,780.44	\$ 315,130.73	\$ 5,692,003.03		\$ 1,090,273.49

Notes: (1) SBC Revenue net of RSA 125-O:5-a funds

(2) Interest within Carryforward balances

UEC

			2024 Funding		HEA Allocation	HEA Program Funds
	Total Funding	PI Pool	Program Funding			
Revenue: SBC ¹	\$ 6,440,574.22	\$ 335,764.53	\$ 6,104,809.69	20%	\$ 1,220,962.09	
Revenue: FCM	\$ 257,009.38	\$ 13,398.59	\$ 243,610.78	20%	\$ 48,722.27	
Revenue: RGGI	\$ 278,935.00	\$ 14,541.64	\$ 264,393.36	18%	\$ 48,495.73	
Carryforward: HEA	\$ 46,383.70	\$ 2,418.11	\$ 43,965.59	100%	\$ 43,965.88	
Carryforward: Non-HEA	\$ 185,535.00	\$ 9,672.44	\$ 175,862.56	0%	\$ -	
Interest	\$ 34,787.77	\$ 1,813.58	\$ 32,974.19	20%	\$ 6,595.26	
Total	\$ 7,243,225	\$ 377,609	\$ 6,865,616		\$ 1,368,741.23	

			2025 Funding		HEA Allocation	HEA Program Funds
	Total Funding	PI Pool	Program Funding			
Revenue: SBC ¹	\$ 6,628,091.30	\$ 345,540.30	\$ 6,282,550.99	20%	\$ 1,256,510.20	
Revenue: FCM	\$ 296,985.02	\$ 15,482.63	\$ 281,502.39	20%	\$ 56,300.48	
Revenue: RGGI	\$ 276,134.00	\$ 14,395.61	\$ 261,738.39	18%	\$ 45,840.76	
Carryforward: HEA	\$ 46,383.70	\$ 2,418.11	\$ 43,965.59	100%	\$ 43,965.59	
Carryforward: Non-HEA	\$ 185,535.00	\$ 9,672.44	\$ 175,862.56	0%	\$ -	
Interest	\$ 17,393.89	\$ 906.79	\$ 16,487.10	20%	\$ 3,297.42	
Total Funding	\$ 7,450,522.90	\$ 388,415.89	\$ 7,062,107.01		\$ 1,405,914.44	

			2026 Funding		HEA Allocation	HEA Program Funds
	Total Funding	PI Pool	Program Funding			
Revenue: SBC ¹	\$ 6,715,975.71	\$ 350,121.96	\$ 6,365,853.75	20%	\$ 1,273,170.75	
Revenue: FCM	\$ 371,632.78	\$ 19,374.22	\$ 352,258.55	20%	\$ 70,451.71	
Revenue: RGGI	\$ 285,795.00	\$ 14,899.27	\$ 270,895.73	20%	\$ 54,998.10	
Carryforward: HEA	\$ 46,383.70	\$ 2,418.11	\$ 43,965.59	100%	\$ 43,965.59	
Carryforward: Non-HEA	\$ 185,535.00	\$ 9,672.44	\$ 175,862.56	0%	\$ -	
Interest	\$ 4,638.37	\$ 241.81	\$ 4,396.56	20%	\$ 879.31	
Total Funding	\$ 7,609,960.55	\$ 396,727.80	\$ 7,213,232.75		\$ 1,443,465.47	

Notes: (1) SBC Revenue net of RSA 125-O:5-a funds

ENNG

	Total Funding		2024 Funding		HEA Allocation	HEA Program Funds
			PI Pool	Program Funding		
Revenue: LDAC	\$ 10,157,197.59	\$ 529,522.15	\$ 9,627,675.44		20.0%	\$ 1,925,535.09
Carryforward: HEA ¹	\$ -	\$ -	\$ -		0.0%	\$ -
Carryforward: Non-HEA ¹	\$ 315,353.00	\$ 16,440.20	\$ 298,912.80		20.0%	\$ 59,782.56
Total	<u>\$ 10,472,550.59</u>	<u>\$ 545,962.35</u>	<u>\$ 9,926,588.24</u>			<u>\$ 1,985,317.65</u>

	Total Funding		2025 Funding		HEA Allocation	HEA Program Funds
			PI Pool ²	Program Funding		
Revenue: LDAC	\$ 10,698,140.11	\$ 557,722.94	\$ 10,140,417.17		20.0%	\$ 2,028,083.43
Carryforward: HEA ¹	\$ -	\$ -	\$ -		0.0%	\$ -
Carryforward: Non-HEA ¹	\$ -	\$ -	\$ -		0.0%	\$ -
Total Funding	<u>\$ 10,698,140.11</u>	<u>\$ 557,722.94</u>	<u>\$ 10,140,417.17</u>			<u>\$ 2,028,083.43</u>

	Total Funding		2026 Funding		HEA Allocation	HEA Program Funds
			PI Pool ²	Program Funding		
Revenue: LDAC	\$ 11,042,646.97	\$ 575,683.02	\$ 10,466,963.95		20.0%	\$ 2,093,392.79
Carryforward: HEA ¹	\$ -	\$ -	\$ -		0.0%	\$ -
Carryforward: Non-HEA ¹	\$ -	\$ -	\$ -		0.0%	\$ -
Total Funding	<u>\$ 11,042,646.97</u>	<u>\$ 575,683.02</u>	<u>\$ 10,466,963.95</u>			<u>\$ 2,093,392.79</u>

(1) Interest within Carryforward balances

NU

	Total Funding	PI Pool	2024 Funding		HEA Allocation	HEA Program Funds
			Program Funding			
Revenue: LDAC	\$ 2,837,681.72	\$ 147,936.01	\$ 2,689,745.70		20%	\$ 537,949
Carryforward: HEA	\$ (33,021.40)	\$ (1,721.49)	\$ (31,299.91)		100%	\$ (31,300)
Carryforward: Non-HEA	\$ (132,086.00)	\$ (6,886.00)	\$ (125,200.00)		0%	\$ -
Interest	\$ (4,953.21)	\$ (258.22)	\$ (4,694.99)		20%	\$ (939)
Total	<u>\$ 2,667,621.11</u>	<u>\$ 139,070.29</u>	<u>\$ 2,528,550.81</u>			<u>\$ 505,710</u>

	Total Funding	PI Pool	2025 Funding		HEA Allocation	HEA Program Funds
			Program Funding			
Revenue: LDAC	\$ 2,987,584.09	\$ 155,750.83	\$ 2,831,833.26		20%	\$ 566,367
Carryforward: HEA	\$ -	\$ -	\$ -		-	\$ -
Carryforward: Non-HEA	\$ -	\$ -	\$ -		-	\$ -
Interest	\$ -	\$ -	\$ -		-	\$ -
Total Funding	<u>\$ 2,987,584.09</u>	<u>\$ 155,750.83</u>	<u>\$ 2,831,833.26</u>			<u>\$ 566,366.65</u>

	Total Funding	PI Pool	2026 Funding		HEA Allocation	HEA Program Funds
			Program Funding			
Revenue: LDAC	\$ 3,105,974.37	\$ 161,922.83	\$ 2,944,051.54		20%	\$ 588,810
Carryforward: HEA	\$ -	\$ -	\$ -		-	\$ -
Carryforward: Non-HEA	\$ -	\$ -	\$ -		-	\$ -
Interest	\$ -	\$ -	\$ -		-	\$ -
Total Funding	<u>\$ 3,105,974.37</u>	<u>\$ 161,922.83</u>	<u>\$ 2,944,051.54</u>			<u>\$ 588,810.31</u>

New Hampshire Utilities
Docket No. DE 23-068

Date Request Received: August 04, 2023
Data Request No. DOE 1-005

Date of Response: August 15, 2023
Page 1 of 2

Request from: Department of Energy

Request:

Pursuant to RSA 374-F:3, VI-a(d) and (d)(1), “Notwithstanding any subsequent [C]ommission order to the contrary, the joint utility energy efficiency plan and programming framework and components, including utility performance incentive payments, lost base revenue calculations, and Evaluation, Measurement, and Verification process that were in effect on January 1, 2021, shall remain in effect until changed by an order or operation of law as authorized in subparagraphs (3) and (5). The joint utilities shall continue to prepare triennial energy efficiency plans with programming and incentive payments at levels optimized to deliver ratepayer savings as made possible by the funding described as follows: (1) Energy efficiency program funding. The budget for joint energy efficiency planning shall be funded through the system benefits charge, local distribution adjustment charges, the energy efficiency fund established pursuant to RSA 125-O:23, revenues available from wholesale energy and ancillary services markets operated by ISO New England, and energy efficiency carry-forward or carry-under balances detailed in the most recent Performance Incentive and Fund Balance reports; however, the joint utilities shall continue to seek alternative sources of funding to supplement the aforementioned funding sources. Total plan overspending shall be treated as a carry-under balance, and not as a charge to utility shareholders.”

- a. Please provide a summary and detailed explanation of the budget showing each of the funding sources listed above. Please provide the supporting calculation and live spreadsheets.
- b. Please provide a detailed explanation of any alternative funding sources and explain if and how the utilities continue to try to seek alternative funding sources.
- c. Please list any references to any page numbers, etc. where the plan addresses compliance with this provision.

New Hampshire Utilities
Docket No. DE 23-068

Date Request Received: August 04, 2023
Data Request No. DOE 1-005

Date of Response: August 15, 2023
Page 2 of 2

Response:

Please refer to Attachments E through J of the Plan filing made on June 30, 2023 for the calculations supporting each utility's budget, including all funding sources, for the 2024-2026 Plan. Please refer to Bates pages 23-27 for the statewide aggregated budgets as well as descriptions for each funding source incorporated into the Plan. For information on other alternative funding sources, please refer to the response to OCA 1-021.

New Hampshire Utilities
Docket No. DE 23-068

Date Request Received: August 04, 2023
Data Request No. DOE 1-007

Date of Response: August 15, 2023
Page 1 of 1

Request from: Department of Energy

Request:

Pursuant to RSA 374-F:3, VI-a(d)(5), "Up to 5 percent of the overall program budget shall be expended on Evaluation, Measurement, and Verification studies, which the department or joint utilities shall contract for as the department deems necessary to assure program funds are optimized to deliver ratepayer savings and to secure funds available from wholesale energy and ancillary services markets."

- a. Please explain how the EM&V funds will assure program funds are optimized "to secure funds available from wholesale energy and ancillary markets." RSA 374-F:3, VI-a(d)(5).
- b. Please list any references to any page numbers, etc. where the plan provides details on this provision.

Response:

RSA 374-F:3, VI entitled 'Benefits for All Consumers' anticipates the use of SBC revenues "to fund public benefits related to the provision of electricity" including, among other things, "support for research and development". The proposed evaluation, measurement and verification efforts help to ensure that the savings claimed by the Utilities are accurate and reflective of actual program intervention and therefore reflect an appropriate use of ratepayer funds, and also provide recommendations for improving the energy efficiency programs' design and deployment, as outlined in Chapter 7 of the Plan, Bates pages 97-100. The programs' EM&V efforts also enable the NHSaves programs to bid their savings into the FCM, as described on Bates 655, procuring an additional funding stream for the programs.

New Hampshire Utilities
Docket No. DE 23-068

Date Request Received: August 04, 2023
Data Request No. DOE 1-001

Date of Response: August 15, 2023
Page 1 of 1

Request from: Department of Energy

Request:

The Public Utilities Commission's (PUC's or Commission's) Order commencing the adjudicative proceeding states that issues the PUC will consider when reviewing the plan, include "whether the joint utilities' Plan offers benefits consistent with RSA 374-F's policy 'to develop a more efficient industry structure and regulatory framework that results in a more productive economy by reducing costs to consumers while maintaining safe and reliable electric service with minimum adverse impacts on the environment.' RSA 374-F:1."

- a. Please explain how this provision will be met.
- b. Please list any references to any page numbers, etc. where the plan addresses this provision.

Response:

RSA 374-F:1's stated intent of developing "a more efficient industry structure and regulatory framework" is consistent with the NHSaves programs, which are available to all retail customers in New Hampshire, regardless of whether they receive supply on the electric utilities' default rate or from an external supplier. The NHSaves programs promote awareness of energy use and conservation and provide incentives for more efficient use of a finite resource that all utility customers share. The program portfolio also has a benefit cost ratio of 2.27, which is exemplary of a more efficient industry: for every dollar spent, there is a greater value of benefits yielded.

The 2024-2026 Plan is designed to build upon the success of the existing plan framework, which has enabled participants and non-participants to realize reduced costs and benefits that exceed the cost of funding and running the programs. The programs are also delivered with no detriment to the safety or reliability of the grid and provide environmental benefits to New Hampshire. Please refer to Bates 9-14 for an overview of the benefits generated under the plan framework.

New Hampshire Utilities
Docket No. DE 23-068

Date Request Received: August 04, 2023
Data Request No. DOE 1-010

Date of Response: August 15, 2023
Page 1 of 1

Request from: Department of Energy

Request:

Pursuant to RSA 374-F:4, VIII(e), “Targeted conservation, energy efficiency, and load management programs and incentives that are part of a strategy to minimize distribution costs may be included in the distribution charge or the system benefits charge, provided that system benefits charge funds are only used for customer-based energy efficiency measures, and such funding shall not exceed 10 percent of the energy efficiency portion of a utility’s annual system benefits charge funds. A proposal for such use of system benefits charge funds shall be presented to the [C]ommission for approval. Any such approval shall initially be on a pilot program basis and the results of each pilot program proposal shall be subject to evaluation by the [C]ommission.”

- a. Please provide a summary of any programs that are targeted to minimize distribution costs.
- b. Please provide a calculation showing that any system benefit charge funds used for such targeted programs does not exceed 10 percent of the energy efficiency portion of the SBC funds.
- c. Please list any references to any page numbers, etc. where the plan provides details regarding this provision.

Response:

The Plan contains no “geotargeted” programs designed to address specific distribution system constraints, as contemplated by RSA 374-F:4, VIII(e).

New Hampshire Utilities
Docket No. DE 23-068

Date Request Received: August 04, 2023
Data Request No. DOE 1-011

Date of Response: August 15, 2023
Page 1 of 1

Request from: Department of Energy

Request:

Pursuant to RSA 374-F:4, VIII-a, "Any electric utility that collects funds for energy efficiency programs that are subject to the [C]ommission's approval, shall include in its plans to be submitted to the [C]ommission program design, and/or enhancements, and estimated participation that maximize energy efficiency benefits to public schools, including measures that help enhance the energy efficiency of public school construction or renovation projects that are designed to improve indoor air quality. . . ."

- a. Please provide a summary of the program design, and/or enhancements, and estimated participation that maximize energy efficiency benefits to public schools, including measures to improve indoor air quality.
- b. Please list any references to any page numbers, etc. where the plan provides details regarding this provision.

Response:

- a. The Electric Utilities continue to offer their Municipal program offerings, which include dedicated funding for municipalities and their schools to access technical assistance, funding and incentives to pursue energy efficiency projects. If funding within the Municipal program is fully expended, public schools are eligible for their projects to be served by the NHSaves C&I programs to ensure they continue to have access to technical assistance and energy efficiency measures, including those that result in improved indoor air quality as a result of the reduction of fossil fuel use, application of high efficiency air conditions, tightening of building shell, etc. While the energy efficiency programs offered by the Gas Utilities have historically provided similar support to municipalities and public schools throughout the state, the 2024-2026 Plan proposes a dedicated Municipal program for the two Gas Utilities (Liberty and Unitil). As with the electric portfolio, public schools will be eligible to utilize the Large and Small C&I programs should Municipal program funding be exhausted during the term. For more information on the Municipal programs, please refer to Bates pages 38-39 and 44-47.
- b. Please refer to the response provided to Part A.

**New Hampshire Utilities
Docket No. DE 23-068**

**Date Request Received: August 04, 2023
Data Request No. DOE 1-006**

**Date of Response: August 15, 2023
Page 1 of 5**

Request from: Department of Energy

Request:

Pursuant to RSA 374-F:3, VI-a(d)(4) Cost effectiveness. "For the purpose of the March 1, 2022 filing, and future plan offerings, the [C]ommission's review of the cost effectiveness shall be based upon the latest completed and available Avoided Energy Supply Cost Study for New England, the results of any Evaluation, Measurement, and Valuation studies [as known as ("EM&V")] contracted for by the department of energy or joint utilities, incorporate savings impacts associated with free-ridership for those programs and measures where such free-ridership may have a material impact on savings figures, and use the Granite State Test as the primary test, with the addition of the Total Resource Cost test as a secondary test. The [C]ommission shall use benefit per unit cost as only one factor in considering whether the utilities have prioritized program offerings appropriately among and within customer classes. In no instance shall an electric utility's planned electric system savings fall below 65 percent of its overall planned energy savings."

- a. Please provide a summary of the EM&V studies for which the results were incorporated for the first time into this plan. Please provide a brief explanation of the study and a summary of the results that were incorporated into this plan. If the study was not provided with the plan, please provide a copy of the study.
- b. Please provide a summary of the measures and programs where "free-ridership may have a material impact on savings figures" and provide a summary of the savings impact associated with the free-ridership.
- c. Please list other factors that the Commission could use in addition to the benefit cost test to determine whether program offerings have been "prioritized...appropriately among and within customer classes."
- d. Please provide a summary table showing how each of the electric utility's planned electric system savings do not fall below 65 percent of overall planned energy savings. Please indicate whether this calculation is for annual savings and/or lifetime savings, and please provide a live excel spreadsheet.

**New Hampshire Utilities
Docket No. DE 23-068**

**Date Request Received: August 04, 2023
Data Request No. DOE 1-006**

**Date of Response: August 15, 2023
Page 2 of 5**

- e. The Commission's August 2nd 2023 Prehearing Order states that in reviewing the cost-effectiveness, the Commission will verify "each utility's application or use of all other variable inputs with reference to New Hampshire Cost-Effectiveness Review." Please provide an explanation and summary of "each utility's application or use of all other variable inputs with reference to New Hampshire Cost-Effectiveness Review."
- f. Please list any references to any page numbers, etc. where the plan addresses compliance with these provisions.

Response:

- a. The Utilities incorporated results from the following EM&V studies into the 2024-2026 Plan:

Large C&I Custom Impact Evaluation. The main objectives of this study are to verify gross energy savings for Large C&I custom electric and gas measures and to update realization rates assumptions. The evaluation utilized a combination of desk reviews, virtual on-site inspections and metering to assess energy savings for a sample of 2020/2021 NH projects. For planning purposes, the Utilities used interim realization rates (96% for electric and 79% for gas) to update the savings assumptions in the 2024-2026 BC Model for non-lighting custom measures offered through the Large C&I Existing Building program. The evaluation report is expected in Q3 2023 and final results will be utilized when reporting on savings for relevant custom measures.

Delivered Energy Insights Impact Evaluation. The study estimated savings attributed to the Eversource Delivered Energy Insights pilot designed to encourage energy savings actions through personalized reports. The study found small (0.27%) but statistically significant electric savings for New Hampshire. Eversource plans to continue to offer these reports and to monitor the impact of this offering across its service territory. See link below for the evaluation report:

https://energizect.com/sites/default/files/documents/R2212_REVIEW_DRAFT_051723.docx

MA Pool Pump Savings Analysis. The analysis provided an updated estimate of annual energy savings for pool pumps installed in MA. The EM&V Working Group leveraged this analysis to develop savings (157.62 kWh) adjusted to the pool pump offering in NH. See link below for the MA Pool Pump analysis:

**New Hampshire Utilities
Docket No. DE 23-068**

**Date Request Received: August 04, 2023
Data Request No. DOE 1-006**

**Date of Response: August 15, 2023
Page 3 of 5**

<https://api-plus.anbtrack.com/etrm-gateway/etrm/api/v1/etrm/documents/60f6e55a3879986b71019df2/view?authToken=33d930ded149ea52dc0fd92abaf7b81c79e5c2686b8f3d9fbf33211ee8072b58d8a5c3badda4538435dfbdd028bccd42183238a90c43f6cfda523bbe31bddd1811dc0baa9bdf35>

Economic Impacts of NHSaves Program (Attachment M). The study analyzed the economic impacts of the 2021 and 2022 NHSaves programs. The study informed the estimates of job creation and maintenance as cited in the Plan narrative.

Market Barriers to Energy Efficiency (Attachment N). The study identified market barriers addressed by the NHSaves programs and the extent to which select energy efficiency programs have overcome such barriers. The study informed the design of programs, including planned activities and expenditures associated with workforce development.

The EM&V Working Group also reviewed and updated the Technical Reference Manual for any applicable new federal, state or ENERGY STAR standards and program qualifications (Attachment S).

- b. The BC model “Inputs Yr 1” “Inputs Yr 2” and “Inputs Yr 3” worksheets list all measures for which the NHSaves programs offer a rebate during the 2024-2026 term. These tabs also include all associated impact factors, including free-ridership, which is displayed in column M. Filtering for non-zero values in the free-ridership field returns a list of 220 measures in the electric model and 50 measures in the gas model. The Input worksheets are the source of the detail listed in the Utilities’ “Program Summary” attachments to the Plan, which display ‘net to gross’ (the combined impact of free-ridership and spillover). Please see Attachment DOE 1-006 for a full list of measures where a free-ridership factor adjusts gross savings assumptions. Gas and electric measures are included on separate worksheets. Each utility populates the BC model based on its own territory specific measure mix, and the impact of free-ridership on adjusted gross savings will vary based on each utility’s specific plan. Actual measure mix is also expected to vary from plan, and therefore free-ridership may have more or less of an impact based on the demand for and deployment of measures utility by utility.

To quantify the impact of free-ridership on each utility’s planned annual and lifetime electricity, the total net energy savings (which includes the impact of free-ridership and spillover) can be compared to the total adjusted gross energy savings (which does not include the impact of free-ridership and spillover). Net and adjusted gross annual savings are

**New Hampshire Utilities
 Docket No. DE 23-068**

**Date Request Received: August 04, 2023
 Data Request No. DOE 1-006**

**Date of Response: August 15, 2023
 Page 4 of 5**

displayed in columns X and Y respectively in the Primary Data worksheet of each electric utility’s BC model. Net and adjusted gross lifetime savings are displayed in columns Z and AA respectively.

For each of the natural gas utilities, annual natural gas savings is shown in columns AD (net savings, inclusive of free-ridership and spillover) and AE (adjusted gross savings, which excludes the impact of free-ridership and spillover), and for lifetime natural gas savings values are displayed in columns AF and AG.

Total Annual Adjusted Gross Savings vs Total Annual Net Savings, 2024-2026			
Utility	Total Adjusted Gross Annual Savings	Total Net Annual Savings	% Difference
2024			
LU-Electric (MWh)	7,424	7,254	-2.3%
NHEC (MWh)	7,501	7,335	-2.2%
Eversource (MWh)	81,907	74,998	-8.4%
Unitil Electric (MWh)	12,672	11,434	-9.8%
LU-Gas (MMBtu)	125,307	124,252	-0.8%
Unitil Gas (MMBtu)	38,287	37,914	-1%
2025			
LU-Electric (MWh)	6,947	6,790	-2.3%
NHEC (MWh)	8,022	7,855	-2.1%
Eversource (MWh)	80,989	74,300	-8.3%
Unitil Electric (MWh)	8,367	7,768	-7.2%
LU-Gas (MMBtu)	128,469	127,274	-0.9%
Unitil Gas (MMBtu)	38,409	38,036	-1%
2026			
LU-Electric (MWh)	6,442	6,306	-2.1%
NHEC (MWh)	7,863	7,700	-2.1%
Eversource (MWh)	80,635	74,086	-8.1%
Unitil Electric (MWh)	12,684	11,447	-9.8%
LU-Gas (MMBtu)	129,862	128,795	-0.8%
Unitil Gas (MMBtu)	39,069	38,696	-1.0%

- c. The Utilities balance the cost efficiency of capturing all available energy efficiency opportunities at a customer site with the equitable approach of achieving broad customer

**New Hampshire Utilities
Docket No. DE 23-068**

**Date Request Received: August 04, 2023
Data Request No. DOE 1-006**

**Date of Response: August 15, 2023
Page 5 of 5**

participation. Additionally, the Utilities ensure that all rate classes have access to the programs and, aside from legislatively mandated funding allocation, all C&I and Residential customer revenues are redeployed to the benefit of the respective C&I and Residential sector programs. Diversity of program offerings also ensures that the programs allow for participation by a wide variety of customers and building types requiring more or less customer investment of effort and funding. Such diversity of program offerings fosters appropriate levels of access among and within customer classes.

The Utilities currently provide robust planning detail and subsequent reporting of actual impact on a quarterly and annual basis that extends well beyond the costs and benefits of programs. This includes an accounting of the number of customers served by each program and the average cost per customer and sector, the MMBtu, kWh and peak kW savings per program on both an annual and lifetime basis, and the geographic distribution of services and spending in the income eligible program.

- d. Please refer to the Cost Effectiveness tabs within each Electric Utility's Excel BC Model, which were included with the Plan's filing package on June 30, 2023, and correspond to Attachments E1, F1, G1, and H1. No Electric Utility's planned annual kWh savings falls below 65 percent of total annual energy savings, in compliance with SB 113.
- e. The Utilities' BC models (electric and natural gas) are designed to reference the value of each of the components included in the Granite State Test, which parallels the approved BC Working Group recommendations.
- f. Section 6.3 of the Plan, starting on page 83 (Bates page 87) described in detail the Benefit-Cost Testing framework on which the Utilities' 2024-2026 Plan is based. In addition, the BC models calculations worksheets reference the values derived from the 2021 AESC study, including those elements of the Granite State Test that the Working Group recommended be included in the calculation of benefits for cost-testing.

Sector (Dropdown)	Program (Dropdown)	Subprogram (Dropdown)	Measure	Measure ID	End Use (Dropdown)	Measure Life	Free-Ridership Rate	Spillover (Participant) Rate	Spillover (Non-Participant) Rate	Net to Gross	In-Service Rate	kWh Realization Rate	kWh Winter Realization Rate	kWh Summer Realization Rate	Non-Electric Realization Rate
A - Residential	A3 - Energy Star Products	A3b - ES Appliances and Products	LED Bulb, General Service Lamps	EA3a001	Lighting	1.0	77.0%	0.0%	0.0%	23.0%	86.0%	100.0%	100.0%	100.0%	100.0%
A - Residential	A3 - Energy Star Products	A3b - ES Appliances and Products	LED Bulb, Linear	EA3a002	Lighting	7.0	77.0%	0.0%	0.0%	23.0%	89.0%	100.0%	100.0%	100.0%	100.0%
A - Residential	A3 - Energy Star Products	A3b - ES Appliances and Products	LED Bulb, Other Specialty	EA3a003	Lighting	3.0	77.0%	0.0%	0.0%	23.0%	89.0%	100.0%	100.0%	100.0%	100.0%
A - Residential	A3 - Energy Star Products	A3b - ES Appliances and Products	LED Bulb, Reflector	EA3a004	Lighting	1.0	77.0%	0.0%	0.0%	23.0%	89.0%	100.0%	100.0%	100.0%	100.0%
A - Residential	A3 - Energy Star Products	A3b - ES Appliances and Products	LED Bulb, General Service Lamps (Hard to Reach)	EA3a005	Lighting	1.0	57.0%	0.0%	0.0%	43.0%	86.0%	100.0%	100.0%	100.0%	100.0%
A - Residential	A3 - Energy Star Products	A3b - ES Appliances and Products	LED Bulb, Linear (Hard to Reach)	EA3a006	Lighting	7.0	57.0%	0.0%	0.0%	43.0%	89.0%	100.0%	100.0%	100.0%	100.0%
A - Residential	A3 - Energy Star Products	A3b - ES Appliances and Products	LED Bulb, Other Specialty (Hard to Reach)	EA3a007	Lighting	3.0	57.0%	0.0%	0.0%	43.0%	89.0%	100.0%	100.0%	100.0%	100.0%
A - Residential	A3 - Energy Star Products	A3b - ES Appliances and Products	LED Bulb, Reflector (Hard to Reach)	EA3a008	Lighting	1.0	57.0%	0.0%	0.0%	43.0%	89.0%	100.0%	100.0%	100.0%	100.0%
A - Residential	A3 - Energy Star Products	A3b - ES Appliances and Products	LED Fixture	EA3a009	Lighting	3.0	77.0%	0.0%	0.0%	23.0%	100.0%	100.0%	100.0%	100.0%	100.0%
A - Residential	A3 - Energy Star Products	A3b - ES Appliances and Products	LED Fixture (Hard to Reach)	EA3a010	Lighting	3.0	57.0%	0.0%	0.0%	43.0%	100.0%	100.0%	100.0%	100.0%	100.0%
A - Residential	A3 - Energy Star Products	A3b - ES Appliances and Products	ECM Motor for FWH Circulating Pump	EA3b013	Motors/Driv	15.0	40.0%	9.0%	0.0%	69.0%	100.0%	100.0%	100.0%	100.0%	100.0%
A - Residential	A3 - Energy Star Products	A3c - ES HVAC Systems	Heat Pump Water Heater, <55 gal - Midstream	EA3b035	Hot Water	15.0	23.0%	0.0%	0.0%	77.0%	100.0%	100.0%	100.0%	100.0%	100.0%
A - Residential	A3 - Energy Star Products	A3c - ES HVAC Systems	Heat Pump Water Heater, >55 gal - Midstream	EA3b036	Hot Water	15.0	23.0%	0.0%	0.0%	77.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1a - LCI Retrofit	Custom Large Lighting Retro - Interior	EC1a004	Lighting	11.0%	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	87.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1a - LCI Retrofit	Custom Large Lighting Retro - Exterior	EC1a047	Lighting	8.0	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	87.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1a - LCI Retrofit	Custom Large Lighting Retro - Controls	EC1a048	Lighting	11.0%	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	87.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1a - LCI Retrofit	Daylight Dimming	EC1a009	Lighting	9.0	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1a - LCI Retrofit	Lighting Fixture - Exterior w/ Controls	EC1a010	Lighting	9.0	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1a - LCI Retrofit	Lighting Fixture - Exterior w/o Controls	EC1a011	Lighting	5.0	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1a - LCI Retrofit	Lighting Fixture - Interior w/ Controls	EC1a012	Lighting	9.0	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1a - LCI Retrofit	Lighting Fixture - Interior w/o Controls	EC1a013	Lighting	5.0	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1a - LCI Retrofit	Lighting Occupancy Sensors	EC1a014	Lighting	9.0	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1b - LCI New Equipment and Construction	Custom Large Lighting New - Interior	EC1b004	Lighting	15.0	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	87.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1b - LCI New Equipment and Construction	Custom Large Lighting New - Exterior	EC1b054	Lighting	15.0	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	87.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1b - LCI New Equipment and Construction	Custom Large Lighting New - Controls	EC1b055	Lighting	10.0	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	87.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1b - LCI New Equipment and Construction	Daylight Dimming	EC1b009	Lighting	10.0	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1b - LCI New Equipment and Construction	Performance Lighting - Exterior w/ Controls	EC1b010	Lighting	15.0	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1b - LCI New Equipment and Construction	Performance Lighting - Exterior w/o Controls	EC1b011	Lighting	15.0	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1b - LCI New Equipment and Construction	Performance Lighting - Interior w/ Controls	EC1b012	Lighting	15.0	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1b - LCI New Equipment and Construction	Performance Lighting - Interior w/o Controls	EC1b013	Lighting	15.0	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1b - LCI New Equipment and Construction	Lighting Occupancy Sensors	EC1b014	Lighting	10.0	11.0%	5.0%	0.0%	94.0%	100.0%	99.9%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Circulator Pump	EC1c001	HVAC	20.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Demand Control Ventilation	EC1c002	HVAC	10.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream DMSHP Systems	EC1c003	HVAC	12.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Dual Enthalpy Economizer Controls	EC1c004	HVAC	10.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream ECM Fan Motors	EC1c005	HVAC	20.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Heat Pump Systems	EC1c006	HVAC	12.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Unitary Air Conditioners	EC1c007	HVAC	12.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream VRF	EC1c008	HVAC	12.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Water Source Heat Pump Systems	EC1c009	HVAC	25.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream LED Downlight	EC1c010	Lighting	1.0	27.0%	11.0%	0.0%	84.0%	85.9%	126.7%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream LED Linear	EC1c011	Lighting	5.0	27.0%	11.0%	0.0%	84.0%	95.6%	98.9%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream LED High Bay/Low Bay	EC1c012	Lighting	7.0	27.0%	11.0%	0.0%	84.0%	99.6%	74.7%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream LED Linear Fixture	EC1c013	Lighting	6.0	27.0%	11.0%	0.0%	84.0%	97.1%	113.5%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream LED Linear Fixture with Controls	EC1c014	Lighting	6.0	27.0%	11.0%	0.0%	84.0%	97.1%	113.5%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream LED Linear Lamp	EC1c015	Lighting	6.0	27.0%	11.0%	0.0%	84.0%	97.1%	113.5%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream LED Screw In	EC1c016	Lighting	1.0	50.0%	23.0%	0.0%	73.0%	71.4%	171.2%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream LED Stairwell Kit	EC1c017	Lighting	5.0	27.0%	11.0%	0.0%	84.0%	95.5%	98.9%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Combination Oven, Electric	EC1c018	Food Serv	12.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Convection Oven, Electric	EC1c019	Food Serv	12.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Conveyor Broler	EC1c047	Food Serv	12.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Deck Oven, Electric	EC1c050	Food Serv	12.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Dishwasher - High Temp Door Type	EC1c020	Food Serv	15.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Dishwasher - High Temp Multi Tank Conveyor	EC1c021	Food Serv	20.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Dishwasher - High Temp Pot, Pan, Utensil	EC1c022	Food Serv	10.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Dishwasher - High Temp Single Tank Conveyor	EC1c023	Food Serv	20.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Dishwasher - High Temp Under Counter	EC1c024	Food Serv	10.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Dishwasher - Low Temp Door Type	EC1c025	Food Serv	15.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Dishwasher - Low Temp Multi Tank Conveyor	EC1c026	Food Serv	20.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Dishwasher - Low Temp Single Tank Conveyor	EC1c027	Food Serv	20.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Dishwasher - Low Temp Under Counter	EC1c028	Food Serv	10.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Freezer - Solid Door	EC1c029	Food Serv	12.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Freezer - Glass Door	EC1c030	Food Serv	12.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Fryer Large Vat, Electric	EC1c031	Food Serv	12.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Fryer Standard Vat, Electric	EC1c032	Food Serv	12.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Griddle, Electric	EC1c033	Food Serv	12.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Hand-Wrap Machine	EC1c051	Food Serv	12.0	22.5%	8.5%	0.0%	86.0%	100.0%	100.0%	100.0%	100.0%	100.0%
C - Commercial & Industrial	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream High Efficiency Condensing Unit	EC1c0											

Sector (Dropdown)	Program (Dropdown)	Subprogram (Dropdown)	Measure	Measure ID	End Use (Dropdown)	Measure Life	Free-Ridership Rate	Spillover [Participant] Rate	Spillover [Non-Participant] Rate	Net to Gross
C - Comm	C1 - Large Business Energy Solutions	C1b - LCI New Equipment and Construction	Indirect Water Heater, Gas	GC1b028	Hot Water	15.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C1 - Large Business Energy Solutions	C1b - LCI New Equipment and Construction	On Demand Tankless Water Heater, Gas	GC1b029	Hot Water	20.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C1 - Large Business Energy Solutions	C1b - LCI New Equipment and Construction	Volume Water Heater, Gas	GC1b030	Hot Water	15.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C1 - Large Business Energy Solutions	C1b - LCI New Equipment and Construction	Condensing Gas Water Heater	GC1b031	Hot Water	15.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Combination Oven, Gas	GC1c001	Food Service	12.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Convection Oven, Gas	GC1c002	Food Service	12.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Conveyor Oven, Gas	GC1c003	Food Service	12.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Fryer, Gas	GC1c004	Food Service	12.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Griddle, Gas	GC1c005	Food Service	12.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Pre-Rinse Spray Valve, Gas	GC1c006	Hot Water	8.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Rack Oven, Gas	GC1c007	Food Service	12.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Steam Cooker, Gas	GC1c008	Food Service	12.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Indirect Water Heater, Gas	GC1c009	Hot Water	15.0	70.0%	0.0%	0.0%	30.0%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream On Demand Tankless Water Heater, Gas	GC1c010	Hot Water	20.0	40.0%	0.0%	0.0%	60.0%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Volume Water Heater, Gas	GC1c011	Hot Water	15.0	40.0%	0.0%	0.0%	60.0%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Midstream Condensing Gas Water Heater	GC1c012	Hot Water	15.0	70.0%	0.0%	0.0%	30.0%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	OMP Thermostatic Shut-off Valve, Gas	GC1c013	Hot Water	15.0	23.0%	9.0%	0.0%	86.0%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	OMP Low-Flow Showerhead, Gas	GC1c014	Hot Water	10.0	23.0%	9.0%	0.0%	86.0%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	OMP Low-Flow Showerhead with Thermostatic Valve, Gas	GC1c015	Hot Water	10.0	23.0%	9.0%	0.0%	86.0%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	OMP Faucet Aerator, Gas	GC1c016	Hot Water	10.0	23.0%	9.0%	0.0%	86.0%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	OMP Pipe Wrap, Gas	GC1c017	Hot Water	15.0	23.0%	9.0%	0.0%	86.0%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	OMP Pre-Rinse Spray Valve, Gas	GC1c018	Hot Water	8.0	23.0%	9.0%	0.0%	86.0%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	OMP Programmable Thermostat, Gas	GC1c019	HVAC	15.0	23.0%	9.0%	0.0%	86.0%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	OMP Wi-Fi Thermostat	GC1c020	HVAC	15.0	23.0%	9.0%	0.0%	86.0%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Underfired Broiler	GC1c021	Food Service	15.0	23.0%	9.0%	0.0%	86.0%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Clothes Washer, High Speed, Gas	GC1c022	Hot Water	7.0	23.0%	9.0%	0.0%	86.0%
C - Comm	C1 - Large Business Energy Solutions	C1c - LCI Midstream	Pasta Cooker, Gas	GC1c023	Food Service	12.0	23.0%	9.0%	0.0%	86.0%
C - Comm	C2 - Small Business Energy Solutions	C2b - SCI New Equipment and Construction	Indirect Water Heater, Gas	GC2b028	Hot Water	15.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C2 - Small Business Energy Solutions	C2b - SCI New Equipment and Construction	On Demand Tankless Water Heater, Gas	GC2b029	Hot Water	20.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C2 - Small Business Energy Solutions	C2b - SCI New Equipment and Construction	Volume Water Heater, Gas	GC2b030	Hot Water	15.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C2 - Small Business Energy Solutions	C2b - SCI New Equipment and Construction	Condensing Gas Water Heater	GC2b031	Hot Water	15.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C2 - Small Business Energy Solutions	C2c - SCI Midstream	Midstream Combination Oven, Gas	GC2c001	Food Service	12.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C2 - Small Business Energy Solutions	C2c - SCI Midstream	Midstream Convection Oven, Gas	GC2c002	Food Service	12.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C2 - Small Business Energy Solutions	C2c - SCI Midstream	Midstream Conveyor Oven, Gas	GC2c003	Food Service	12.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C2 - Small Business Energy Solutions	C2c - SCI Midstream	Midstream Fryer, Gas	GC2c004	Food Service	12.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C2 - Small Business Energy Solutions	C2c - SCI Midstream	Midstream Griddle, Gas	GC2c005	Food Service	12.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C2 - Small Business Energy Solutions	C2c - SCI Midstream	Midstream Pre-Rinse Spray Valve, Gas	GC2c006	Hot Water	8.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C2 - Small Business Energy Solutions	C2c - SCI Midstream	Midstream Rack Oven, Gas	GC2c007	Food Service	12.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C2 - Small Business Energy Solutions	C2c - SCI Midstream	Midstream Steam Cooker, Gas	GC2c008	Food Service	12.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C2 - Small Business Energy Solutions	C2c - SCI Midstream	Midstream Indirect Water Heater, Gas	GC2c009	Hot Water	15.0	70.0%	0.0%	0.0%	30.0%
C - Comm	C2 - Small Business Energy Solutions	C2c - SCI Midstream	Midstream On Demand Tankless Water Heater, Gas	GC2c010	Hot Water	20.0	40.0%	0.0%	0.0%	60.0%
C - Comm	C2 - Small Business Energy Solutions	C2c - SCI Midstream	Midstream Volume Water Heater, Gas	GC2c011	Hot Water	15.0	40.0%	0.0%	0.0%	60.0%
C - Comm	C2 - Small Business Energy Solutions	C2c - SCI Midstream	Midstream Water Heater, Condensing Gas	GC2c012	Hot Water	15.0	70.0%	0.0%	0.0%	30.0%
C - Comm	C2 - Small Business Energy Solutions	C2c - SCI Midstream	Clothes Washer, High Speed, Gas	GC2c022	Hot Water	7.0	23.0%	9.0%	0.0%	86.0%
C - Comm	C2 - Small Business Energy Solutions	C2c - SCI Midstream	Pasta Cooker, Gas	GC2c023	Food Service	12.0	23.0%	9.0%	0.0%	86.0%
C - Comm	C3 - Municipal Energy Solutions	C3b - Muni New Equipment and Construction	Indirect Water Heater, Gas	GC3b028	Hot Water	15.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C3 - Municipal Energy Solutions	C3b - Muni New Equipment and Construction	On Demand Tankless Water Heater, Gas	GC3b029	Hot Water	20.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C3 - Municipal Energy Solutions	C3b - Muni New Equipment and Construction	Volume Water Heater, Gas	GC3b030	Hot Water	15.0	23.7%	7.0%	0.0%	83.3%
C - Comm	C3 - Municipal Energy Solutions	C3b - Muni New Equipment and Construction	Condensing Gas Water Heater	GC3b031	Hot Water	15.0	23.7%	7.0%	0.0%	83.3%

New Hampshire Utilities
Docket No. DE 23-068

Date Request Received: August 04, 2023
Data Request No. DOE 1-012

Date of Response: August 15, 2023
Page 1 of 1

Request from: Department of Energy

Request:

Reference Section 2.1.5 “Performance Incentive” at Bates 34. Is it a correct understanding that each utility will file only “illustrative” Performance Incentive (PI) calculations following each calendar year but will not actually book any Performance Incentive amounts on its financial records until the completion of the 2024-2026 three-year plan period? If this is not correct, please explain further in more detail.

Response:

Each utility will file its illustrative performance incentive annually on June 1 and will book the estimated amount recognized in the filing, which will then be trued up to the actual performance incentive earned at the conclusion of the term.

New Hampshire Utilities
Docket No. DE 23-068

Date Request Received: August 04, 2023
Data Request No. DOE 1-019

Date of Response: August 15, 2023
Page 1 of 2

Request from: Department of Energy

Request:

ADR: Reference Attachment Q, Bates 673, 1st paragraph. "The program will be designed" This statement suggests there are no existing program designs, and there are no details of the ADR program design provided in the Plan or Attachments.

- a. Given the joint utilities plan to move from Pilot to full programs, please provide descriptions, even if preliminary, of these programs (or reference to them), including how estimates of performance, as well as evaluation of actual performance, will be addressed. Specifically, please provide descriptions regarding how demand reduction savings are calculated. While this can be deduced on some level from the Benefit Cost Models (BCT), having written descriptions will greatly improve the Department's ability to better understand this program.
- b. Please provide back-up assumptions, calculations, etc. that support the data included on Table 5-1: C&I ADR Program Savings, reference the Plan on page 75, Bates 79, and support the basis for the PI calculation for ADR.

Response:

- a. Chapter Five of the 2024-2026 Plan (Bates pages 77-81) provides an overview of the proposed ADR Programs. The language in Attachment Q contains previously filed descriptions of these offerings, as the Utilities intend to operate the ADR programs without significant change.

Please also refer to the response to DOE 1-017 for the savings calculation methodology for the ADR programs, including reference to the active demand measure entries in the 2024 NH TRM, as well as the January 28, 2019 and February 28, 2020 filings in Docket No. DE 17-136 for additional details on the Commercial and Industrial Demand Reduction Initiative and the Residential Demand Reduction Initiative.

New Hampshire Utilities
Docket No. DE 23-068

Date Request Received: August 04, 2023
Data Request No. DOE 1-019

Date of Response: August 15, 2023
Page 2 of 2

- b. For Table 5-1, the 2020-2022 savings were pulled from the Utilities Q4 Reports, while the 2024-2026 savings are comprised of the C&I ADR savings within each utility's BC Model. The 2020-2022 savings are based on vendor reports of customer enrollment and actual performance as well as calculations applying the scaling factor to C&I performance. This data is shared with third-party evaluators to measure program impact.

Because the performance incentive is designed to be equal to 5.5% of the portfolio expenditures, the amount of PI associated with the active demand programs is equal to 5.5% of the budget for those offerings.

Benefits associated with the ADR programs are derived from the same avoided cost streams from the AESC, and subject to the same evaluation methodologies, as those associated with all other energy efficiency programs, and largely derive from avoided capacity costs. Consistent with prior plans, each of the electric utilities with ADR offerings have filed a specific ADR benefit cost model reflecting the costs and benefits associated with their programs. Within those models, the worksheet "Att Ben" displays the total benefits from the offerings in net present value (2024\$) for each year of the plan. The "Calcs" worksheets display the benefits of each type of active demand measure, which in turn reference the avoided cost tables developed by the third-party AESC vendor. These benefits from the ADR model are then brought into the comprehensive EE benefit cost model Ben(efits) worksheet as well as the Cost Eff(ectiveness) worksheet, which shows costs and benefits for each program, each sector, and portfolio as a whole.

The costs and benefits of the portfolio are displayed in the P(erformance)I(ncentive) worksheet, and design level PI is equal to 5.5% of the planned budget (actual PI is calculated based on actual spending and the proportionate achievement of savings targets). ADR programs are treated like all other energy efficiency programs for the purpose of estimating PI, with associated costs and benefits included in the overall calculation. The summer kW savings associated with the ADR programs is not included in the target summer peak demand kW, and were excluded for two primary reasons, 1) to preserve the PI framework as originally developed and 2) to avoid having a disproportionately large amount of performance incentive tied to the performance of the ADR programs. As shown in the Attachment, Active Demand as included in the Utilities' statewide electric portfolio accounts for 2.7% of planned spending, 3.7% of planned benefits and 2.7% of planned PI.

New Hampshire Utilities
Docket No. DE 23-068

Date Request Received: August 04, 2023
Data Request No. DOE 1-021

Date of Response: August 15, 2023
Page 1 of 1

Request from: Department of Energy

Request:

Reference Plan at Bates 40, SmartSTART program, and the Commission's Order No. 26,621 dated April 29, 2022, in Docket DE 20-092, where the Commission stated at page 27: "According to testimony at hearing, the Smart[]Start Performance incentive is in addition to the overall performance incentive of up to 6.875%, which is calculated based on program dollars spent and savings achieved. We share the DOE's concern that Eversource is already adequately incentivized through the overall performance incentive to use energy efficiency funds to support the SmartStart program, we therefore expect that this specific incentive shall be eliminated in the next triennium" At the Technical Session held in this docket on July 27, 2023, Eversource represented that it would eliminate the 6% performance incentive for the SmartStart program. Please confirm that Eversource will terminate the performance incentive for the SmartStart program as part of the 2024-2026 Plan.

Response:

Eversource will terminate the performance incentive for the SmartSTART program as part of the 2024-2026 Plan.