

Public Service Company of New Hampshire d/b/a Eversource Energy
Docket No. IR 22-042

Date Request Received: December 08, 2022
Data Request No. RR 3-001

Date of Response: December 29, 2022
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Request from: New Hampshire Public Utilities Commission

Request:

- I. The Granite State Test, the Total Resource Cost Test, and Discount rates:** The Commission wants to better understand the assumptions and parameters used to estimate the energy efficiency savings generated by each program of the Energy Efficiency Program.
 1. *Refer to Benefit Cost Model, (IR 22-042 2021 ACTUAL BC Model - Eversource NH), worksheet "1. Att E1 Cost Eff", columns F (Total Resource Cost Test Benefits) and G (Granite State Test Benefits). Please confirm whether each respective benefits column includes the following customer benefits:*
 - i. Participant avoided energy cost.
 - ii. Participant avoided distribution cost.
 - iii. Participant avoided transmission cost.
 - iv. Non-participant avoided energy cost.
 - v. Non-participant avoided distribution cost.
 - vi. Non-participant avoided transmission cost.
 2. Commission advisors aggregated program-level data from each individual utility's benefit-cost models and used that to calculate the percentage of the total energy benefits and the percentage of the total benefits under the Granite State Test attributable to each end-use category. The Joint Utilities are requested to validate or otherwise comment on whether the following summation of data accurately represents the percentage of electric energy savings and benefits under the Granite State Test derived from each identified end-use category.

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End Use Categories	End Use % of Total Electric Benefits (\$)	End Use % of Total Benefits (Granite State Test)
Lighting	67.18%	33.52%
HVAC	11.26%	17.96%
Envelope	6.58%	32.49%
Process	3.50%	2.42%
Compressed Air	3.48%	1.94%
Custom Measures	2.67%	6.13%
Refrigeration	2.01%	1.13%
Hot Water	1.39%	2.86%
Motors/Drives	1.36%	0.76%
Food Service	0.29%	0.42%
Behavior	0.29%	0.27%
Non-Energy Saving	0.00%	0.09%
Grand Total	100.00%	100.00%

Response:

1. Please refer to the 'Calculations Yr 1' tab of the referenced Benefit Cost Model, columns BD through BX for the specific values of the avoided energy, distribution, and transmission costs from the measures installed. The 'Att E1 Cost Eff' tab displays all of the aggregate benefits, including but not limited to the avoided energy costs, avoided distribution costs, and avoided transmission costs for the measures installed under both the Granite State Test (GST) and Total Resource Cost test (TRC).

The GST benefits, shown in column DL of the Calculations tab, are the total of all electric benefits, all non-electric resource benefits, income-eligible participant NEIs, and benefits associated with reduced fossil fuel emissions. The TRC benefits, shown in column DK of the Calculations tab, are the total of all electric benefits, all non-electric resource benefits, all participant NEIs, and benefits associated with reduced fossil fuel emissions.

2. It is important to note that the GST considers benefits from all energy savings and not just electric energy benefits. This approach is based on the recommendations of the PI Working Group and was subsequently approved by Order 26,322. Significantly, the relative share of

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electric and total benefits from each of the end use categories included in the table are rapidly and significantly changing as a result of federal lighting standards going into effect, as well as NH Building Code energy requirements, which together reduce the opportunities for the Joint Utilities to induce incremental electric energy efficiency from the lighting end use. Therefore, the table provided by the Commission should not be relied upon as a gauge to measure the full impact of the NHSaves programs nor the level of electric and total benefits from the programs going forward. It is also important to note that the Joint Utilities actively engage customers to pursue energy efficiency opportunities where they exist, regardless of end use, and that the share of benefits by end use will differ, sometimes dramatically, between what is planned and what is realized. Different benefit cost tests produce different calculations of benefits because of what is and is not included, what assumptions are used to estimate benefits over the life of measures, and economic factors that are utilized to arrive at net present value, including inflation and discount rates, which vary over time. So, the table is limited in that it is only a snapshot and doesn't accurately reflect the NHSaves programs over any span of time, including future program years.

As detailed in the 2021 Reporting Requirement 1.1 'GST and TRC Matrix' and the Benefit-Cost Test Working Group Report, electric system benefits included in the GST include the following utility system benefits: avoided energy costs, avoided generating capacity costs, avoided reserves, avoided transmission costs, avoided distribution costs, avoided T&D line losses, demand reduction induced price effects (DRIPE), avoided costs associated with Renewable Portfolio Standard ("RPS") compliance, avoided environmental compliance costs, and reduced risk.

Total GST benefits also include avoided fossil fuel costs, avoided water and wastewater benefits, income-eligible participant NEIs, and benefits associated with reduced fossil fuel emissions.