

Public Service of New Hampshire d/b/a Eversource Energy
Docket No. DE 20-092

Date Request Received: 10/06/2020

Date of Response: 10/20/2020

Request No. STAFF 3-002

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Request from: New Hampshire Public Utilities Commission Staff

Witness: Roshan V. Bhakta, Tom Palma

Request:

For the ADR pilot programs conducted in 2019 and 2020, please provide data for each year and sector for the following:

- a) The kW demand savings serving as the basis for the customer and CSP incentive calculation,
- b) The kW demand savings that would serve as the basis for the performance incentive using the calculation methodology proposed in this plan.
- c) The performance incentive specific the active demand that would have been achieved based on the calculation methodology proposed in this plan.

Response:

- a. For Commercial, the 2019 kW demand savings serving as the basis for the customer and CSP incentive calculation is known as the “Performed” reduction. An ex post gross average demand reduction calculation based on the event and customer baseline prior to an event, used for customer settlement. This is also noted as the “Reported – Asymmetric” reduction in the Cross-State Evaluation. These reductions were 5,156 kW for Eversource and 1,299 kW for Unitil.

In 2019 no Residential pilot programs were administered.

The 2020 performance data is not yet available for Commercial or Residential.

The final evaluation was completed in April, 2020 and is available here

https://puc.nh.gov/Electric/Monitoring%20and%20Evaluation%20Reports/Cross-State-CI-DR-S19-Evaluation-Report_04-15-2020.pdf A summary table of results is below.

Summer 2019	Eversource NH (kW)	Unitil NH (kW)
Planned	5,000	1,800
Enrolled	5,905	1,600
Reported Asymmetric Adjustment	5,156	1,299
Evaluated Asymmetric Adjustment	5,661	1,363
Evaluated Symmetric Adjustment	5,147	1,185

- b. With regard to savings that would serve at the basis for the performance incentive, as described in the February 28, 2020 Supplemental Filing, for the purposes of claiming savings, the evaluator recommends using a 10-of-10 baseline with symmetric adjustment to account for all positive and negative adjustments to pre-event load on the event day. For 2019 those values were 5,147 kW for Eversource and 1,185 kW for Unitil.

To determine active demand kW savings when directly measured evaluated symmetric results are not available, an evaluation-based realization rate would be applied to the reported asymmetric kW savings. Applying the evaluated-based realization rate to the reported asymmetric values will result in a value equivalent to the “Evaluated – Symmetric” value. Calculating an “Evaluated – Symmetric” value is only needed for C&I Curtailment reductions.

To determine active demand benefits, an “impact factor” is applied using the calculator developed by Synapse Energy Economics called “The Effect of Uncleared Capacity Load Reductions on Peak Forecasts”. The performance from each hour of each event is input into this calculator in order to determine the overall benefits of this peak capacity reduction.

- c. For the purposes of this question, the utilities used the percentage of kW achieved in 2019 compared to the targets included in the 2019 supplemental filing, multiplied by the proposed 2021-2023 active demand design coefficient of 0.275%, multiplied by 2019 portfolio spending.

		Eversource	Unitil
a	Active Demand kW - Planned	5,000	1,800
b	Active Demand kW - 65% Threshold	3,250	1,170
c	Active Demand kW - Actual	5,147	1,185
d	% of Plan (c ÷ a)	102.9%	65.8%
e	Design Coefficient	0.275%	0.275%
f	Actual Coefficient (e x d)	0.283%	0.181%
g	Total Utility Costs	\$35,133,736	\$5,228,889
h	Theoretical PI Based on 2021-2023 Plan Methodology (g x f)	\$99,458.34	\$9,466.47

a	Active Demand kW - Planned	Planned 2019 active kW savings
b	Active Demand kW - 65% Threshold	Threshold at which PI is eligible to be earned (65% of Planned savings)
c	Active Demand kW - Actual	Actual (evaluated symmetric) 2019 active kW savings
d	% of Plan (c ÷ a)	Percent of planned 2019 active kW savings achieved
e	Design Coefficient	Share of planned total PI formula dedicated to active kW savings in 2021-2023
f	Actual Coefficient (e x d)	Proportion of coefficient actually achieved by active kW savings
g	Total Utility Costs	Actual 2019 portfolio utility costs (net of Smart Start)
h	Theoretical PI Based on 2021-2023 Plan Methodology (g x h)	Performance incentive specific to active demand that would have been achieved in 2019 based on the calculation methodology proposed in the 2021-2023 plan (not including any contribution related to benefits achieved).

Public Service of New Hampshire d/b/a Eversource Energy
Docket No. DE 20-092

Date Request Received: 09/17/2020

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Request No. STAFF 1-005

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Request from: New Hampshire Public Utilities Commission Staff

Witness: Roshan V. Bhakta, Tom Palma

Request:

For the performance incentive related to the ADR programs, please provide the following:

- a. A detailed description and an equation showing the calculation methodology for the performance incentive;
- b. If the performance incentive is calculated for the cumulative results over the 3year plan years, please justify why this is appropriate since the effects of the program only occur on an annual basis.

Response:

- a. Please refer to Bates 214 and 215 of the September 1, 2020 Plan Filing for the requested information. Taking the calculation for ADR from Bates 215, the calculation for ADR performance incentive is: $[(0.275\% \times \text{ACTUAL}) \times (\text{kWADR-ACT}/\text{kWADR-PLN})]$, where ACTUAL = Total dollars spent (less PI), kWADR-ACT = Actual active demand summer peak kW, and kWADR-PLN = Planned active demand summer peak kW. To provide an illustrative example, if total dollars spent (less PI) was \$10,000,000, planned active demand summer peak kW was 1,000 kW and actual active demand summer peak kW was 1,100 kW, the contribution to the total performance incentive would be: $[(0.275\% \times \$10,000,000) \times (1,100\text{kW}/1,000\text{kW})] = (\$27,500) \times (1.1) = \$30,250$.
- b. As noted on Bates 217, the Performance Incentive for all programs will be based on the cumulative results over the three-year plan. Mathematically, measure life only impacts how long the savings can be claimed in contribution to the savings goal. There is no difference in summing the 2021-2023 performance of a measure with a one-year measure life versus one with a longer measure life; the applicable savings actually installed are summed and compared against the planned savings.