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DE 17-136

STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION

DOCKET DE 17-136

IN THE MATTER OF: 2018-2020 New Hampshire Statewide Energy Efficiency Plan.

DIRECT TESTIMONY

OF

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November 01, 2017

Introduction

Q. Please state your name, current position and business address.

A. My name is James J. Cunningham, Jr. and I am employed by the New Hampshire Public Utilities Commission (Commission) as a Utility Analyst. My business address is 21 South Fruit Street, Suite 10, Concord, New Hampshire 03301.

Q. Please summarize your educational and professional background.

A. Please refer to Appendix A.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to provide my recommendations on (1) performance incentives (PI), (2) lost revenue and (3) program continuity.

Performance Incentives

Q. With respect to performance incentives, please provide background on recent developments pertaining to performance incentives (PI).

A. In its Order No. 25,932 in Docket DE 15-137, August 2, 2016, the Commission approved a Settlement Agreement which recommended a framework for an Energy Efficiency Resource Standard (EERS). The framework included a reduction in the level of PI, in conjunction with the approval of a lost revenue adjustment mechanism (LRAM), both of which became effective on January 1, 2017. In its order, the Commission noted that the reduced levels of PI were sufficient to provide a reasonable incentive to pursue exemplary performance in program administration and delivery and to put efficiency investment on an equal footing with other earnings opportunities available to the Electric and Gas Utilities. The reduced PI, along with the introduction of LRAM, was implemented effective January 1, 2017.

The order also approved a subsequent review of the PI formula that was to occur prior to the filing of the EERS on September 1, 2017:

The Settling Parties agree to review the existing PI formula prior to the filing of the 2018 EERS filing, and the Settling Parties, individually or in a group or groups, may make recommendations in that filing of modifications to the current formula. Such review shall include consideration of achievements of energy efficiency savings for low income customers.

To assist with the review, the Commission hired an independent consultant (VEIC) to facilitate the development of initial EERS plans, including the review of PI.

Q. In order to address changes to the PI formula, did VEIC provide any suggestions about best practices?

A. Yes. VEIC provided a number of suggestions pertaining to best practices for PI including:

- Establish metrics that are clear, well-defined, and transparent
- Utilize third-party verification of performance
- Scale PI to provide higher incentives with higher performance
- Consider multiple metrics to drive results that align with goals

Q. In addition to best practices, did VEIC provide any specific recommendations pertaining to changes to the New Hampshire PI formula?

A. Yes. VEIC provided a number of recommended changes to the existing New Hampshire PI formula including the following:

- Raise minimum thresholds for PI and provide oversight to ensure that savings targets are sufficiently ambitious
- Tier PI (e.g., 1% for savings from 75%-90% of target, 1.75% for savings from 90-100%, 2.75% for savings >100%
- Keep performance incentives metric separate, rather than linking them
- Consider a budget carve-out for R&D and pilots

Q. Has the Commission considered any of these VEIC recommendations in the past?

A. Yes. The Commission has already considered and implemented several of these suggestions. For instance, the Commission's PI formula has two metrics – i.e., a savings metric and a cost-effectiveness metric. Both metrics are clearly defined to ensure clarity and transparency.

Also, the Commission has approved separate performance incentive metrics, with caps for each metric. This avoids offsetting underperformance on one metric with over-performance on the other metric.

Q. Do you believe that any suggestions by VEIC, not yet implemented by the Commission, might be considered by the settling parties and other interested parties?

A. Yes. The settling parties and other parties might want to consider other metrics that are not currently included in the PI formula. For instance, the settling parties and other parties might want to consider:

- Additional metrics that align with achievements of energy efficiency savings for low income customers
- Additional metrics that align with goals pertaining to market transformation

- Additional metrics that align with demand reduction goals

If the Commission decides to introduce new goals and new metrics recommended by the parties, then, re-designed PI metrics could be introduced in the annual EERS update, for effect January 1, 2019.

Q. Did VEIC offer any suggestions with respect to a process to consider changes to PI?

A. Yes. VEIC recommended the following process:

- Convene a stakeholder process to consider changes
- Utilize gradualism in changing to a new PI formula

Q. What next steps do you recommend?

A. I believe that the comments and recommendations provided by VEIC are very helpful in directing our next steps. With respect to the process for considering changes to PI, the Commission has utilized the stakeholder process in the past and it has worked well. Therefore, I recommend a working group of interested parties be established to review the existing PI formula.

With respect to timing, I recommend that the interested parties meet in early 2018 in order to complete its work by July 1, 2018. That would allow sufficient time to identify the potential changes in the PI formula and incorporate any agreed upon changes into the EERS annual update, effective January 1, 2019.

Lost Revenue

Q. Please summarize your recommendation for lost revenue for the Electric and Gas Utilities.

A. Table 1 provides a comparison of the Company's proposed amounts for lost revenue and my corresponding recommendations.

Table I
Lost Revenue
Summary of Proposed and Recommended Amounts

	Proposed	Recommend	Increase/ (Decrease)
Eversource	$ 1,615,009	$ 1,128,577	$ (486,432)
Liberty	$ 187,021	$ 116,579	$ (70,442)
Unitil	$ 252,605	$ 136,559	$ (116,046)
NHEC	$ n/a	$ n/a	$ n/a
Energy North	$ 486,319	$ 486,319	$ 0
Northern Utilities	$ 109,257	$ 109,257	$ 0
Total Lost Revenue	$ 2,650,211	$ 1,977,291	$ (672,920)

Please note that lost revenue is not shown for NHEC because NHEC is not proposing lost revenue.

Q. Based on Table 1, your recommended amounts for the Electric Utilities are lower than the amounts proposed. Please explain.

A. Based on my review of the filing, I recommend a modification to the calculation of average distribution rates for the Electric Utilities. My recommendation pertains to the C&I class.

Specifically, the Electric Utilities propose to calculate average distribution rates for the C&I class that are based on a methodology that combines distribution revenue associated with kWh volumetric charges and kW demand charges. The combined revenue is divided by annual kWh billing determinants to calculate the average distribution rate per kWh. This combined rate is then multiplied by kWh savings attributed to energy efficiency programs to calculate lost revenue.

My testimony recommends separate average distribution rates for the kWh volumetric charges and the kW demand charges. These separate rates are then multiplied by the respective kWh and kW demand savings to calculate lost revenue.

Please see Schedule 1, page 1 of 6, for a comparison of lost revenue amounts based on the "combined" versus "separate" calculation.

Q. Does your recommendation incorporate the Commission authorized lost revenue adjustment mechanism (LRAM)?

A. Yes. My recommendation incorporates the lost revenue adjustment mechanism (LRAM) that was authorized in DE 15-137.[1] In that docket, the Commission established a framework for a multi-year energy efficiency resource standard (EERS) for years 2018-2020. The framework set savings targets attributed to energy efficiency programs and an LRAM to recover lost revenue attributed to energy efficiency programs.

My testimony does not recommend any changes to the LRAM that the Commission authorized for the recovery of lost revenue; rather, my testimony recommends a modification to the calculation of average distribution rates used to calculate lost revenue.

[1] Order No. 25,932, Docket no. DE 15-137, August 2, 2016, approving a framework for EERS and a lost revenue adjustment mechanism (LRAM) for recovery of lost revenue.

Q. Your recommended calculation of lost revenue utilizes separate kWh and kW components. Is this information readily available in the filing and/or in the Commission files?

A. Yes, the information is readily available in the filing and/or Commission files. As noted above, I calculate separate average distribution rates for the kWh component and the kW component. These calculations utilize kWh and kW savings as contained in the filing coupled with Commission approved tariffs currently on file. Please see JJC-1, page 6 of 6 for a summary of the kWh and the kW savings and Appendix B for relevant pages of the tariffs for Eversource, Liberty and Unitil.

Q. Please continue with your explanation as to why you recommend separate average distribution rates for the kWh component and the kW component.

A. I recommend a separate calculation for average distribution rates for each component in order to provide for improved accuracy in the calculation of lost revenue. By keeping the components separate, there is a nexus between each component and the calculation of lost revenue that is attributed to each component. However, if the components are combined, the nexus attributable to each component is lost.

Also, kWh and kW are two different units of measure – i.e., kWh is a unit of <u>energy</u> and kW is a unit of <u>power</u>. Energy, the capacity to do work, is the accumulation of power over a specified period of time, such as an hour or year. A kW is a measure of the rate at which power is produced or consumed. For energy efficiency purposes, we often use demand or load as the amount of power consumed either on average or instantaneously.

Q. You mention above that your modification to the calculation of average distribution rates pertains only to the Electric Utilities' C&I rates. Please explain.

A. My modification pertains only to Electric Utilities' C&I rates because only the Electric C&I rates incorporate both kWh and kW demand components for purposes of calculating lost revenue. The residential rates do not have a kW demand component.

Q. Please continue with your recommended calculation of average distribution rates for the C&I class for Electric Utilities.

A. My testimony develops average distribution rates based on Commission approved tariffs and billing determinants for customer groups in the C&I rate classes.[2]

Specifically, average distribution rates are determined by summing up the revenue for the customer groups within the C&I rates and calculating an average distribution rate for the C&I rates as a whole. The calculation utilizes tariff rates for individual customer groups coupled with associated 2015 billing determinants to calculate revenue for each sub-group. The sub-groups are then summed and the resulting overall revenue is divided by the overall billing determinants to calculate the average distribution rate for C&I rates. This calculation is performed for the kWh component and the kW component.

The source of the tariff rates are the tariffs that are currently approved by the Commission. The billing determinants for 2015 are provided by the Utilities in the instant filing.

Please see Schedule JJC-1, page 3 of 6 for the derivation of average distribution rates for Eversource. Also, please see Schedule JJC-1, page 4 of 6 and Schedule JJC-1, page 5 of 6 for the same calculation for Liberty and Unitil respectively.

Q. After determining average distribution rates, how does your testimony use these rates to calculate lost revenue?

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[2] Year 2015 billing determinants mirror the recent rate cases for Liberty and Unitil. Although there is no recent rate case for Eversource, my testimony uses 2015 billing determinants for consistency purposes.

A. After determining average distribution rates for the kWh and kW component, I multiply these rates by the proposed kWh and kW savings. Then, I add the results of both calculations to determine lost revenue. See Schedule JJC-1, page 2 of 6 for a summary of these calculations for Eversource, Liberty and Unitil.

Q. For Electric Utilities, there is a significant difference between the proposed amount of lost revenue and your calculated amount of lost revenue. What is the reason for this difference?

A. The difference is caused by the use of different average distribution rates. The Utilities calculate a combined average distribution rate while my testimony calculates separate average distribution rates – i.e., one for the kWh component and another for the kW component.

For instance, by combining kWh and kW components, Eversource calculates a combined average distribution rate of $0.02552 per kWh (Bates 245, line 10).

By comparison, my testimony calculates separate average distribution rates – i.e., $0.00996 per kWh for the kWh component; and, $6.00212 per kW for the kW component. The use of different average distribution rates causes a reduction of $486,432 in the amount of lost revenue for Eversource. Please see Schedule JJC-1, page 2 of 6 for the details of my calculation of Eversource lost revenue. This Schedule also shows details of my calculation of lost revenue for Liberty and Unitil.

Q. Based on the differences between your calculation of average distribution rates and associated lost revenue amount, what is your recommendation for this instant case?

A. I recommend that the Electric Utilities recalculate their 2018 lost revenue to reflect average distribution rates that are calculated separately for the two components – i.e., the kWh component and the kW component. Going forward, for 2019 and 2020, I recommend that the Electric Utilities use separate average distribution rates that are calculated for the kWh and kW component. The resulting calculation of lost revenue will provide an improvement in the accuracy of the calculation of lost revenue by providing a nexus between each saving component and the associated calculation of lost revenues for each component.

Q. For the prior calendar year 2017, the Utilities developed a combined average distribution rate to calculate lost revenue. Are you recommending any changes to calendar year 2017?

A. I'm not recommending any modification to the calculation of the average distribution rate for 2017, only for 2018 and going forward.

However, since lost revenue is calculated based on cumulative kWh and kW savings, my testimony adds the 2017 layer of savings to the 2018 layer in the calculation of lost revenue for 2018. Therefore, for purposes of calculating lost revenue in 2018, separate average distribution rates for the kWh and kW components will be applied to the cumulative kWh and kW savings components for both 2017 and 2018.

Q. Do you have any other comments about the calculation of lost revenue?

A. Yes, I have several comments.

First, I note that the filing indicates that lost revenue will not be calculated for measures that have expired.[3] However, the filing does not appear to provide any tracking mechanism to ensure that such expired measures are not included in the calculation going

[3] Reference Joint Testimony of Karen M. Asbury, Christopher J. Goulding, Heather M. Tebbetts, and Carol M. Woods at Bates 431 line 19.

forward. I recommend that the Utilities provide a template that shows how retirements will be tracked.

Second, based on discovery,[4] the Utilities indicate that LED lighting installed in 2017 will be retired in 8 years. Thus, lost revenue will be calculated for the years 2017 through 2025. In the instant filing, the measure life of LED lighting is expected to be only 5 years.[5] Therefore, lost revenue for 2017 LED lighting installations should be calculated for the 5-year period 2017 through 2022.

Third, Liberty-Gas is proposing that its lost revenue mechanism will expire on the date the revenue decoupling mechanism becomes effective.[6] I note that, for administrative tracking purposes, Liberty-Gas is proposing a revenue decoupling mechanism in its permanent rate proceeding currently under consideration in Docket DG 17-048.

Q. Please summarize your testimony pertaining to lost revenue.

A. My testimony incorporates the LRAM mechanism that was authorized in Order 25,932. I do not recommend any changes to the LRAM; however, I recommend a modification to the average distribution rates that are used to calculate lost revenues which are, in turn, recovered via the LRAM.

My testimony reviews the proposal to ensure that it accurately calculates average distribution rates which are, in turn, used to calculate lost revenues. Based on my review, the proposal uses a "combined" calculation of average distribution rates. I recommend a modification that separates the combined calculation of average distribution rates into its component parts – i.e., the kWh component and the kW component. I believe that separation of each component provides an improvement in the accuracy of the calculation

[4] Reference attached Appendix C, Staff 1-37.
[5] Reference Filing at Bates 235, footnote 2.
[6] Reference attached Appendix C, Staff 1-38.

of lost revenue by providing a nexus between the proposed kWh and kW savings and the associated kWh and kW lost revenues. Specifically, the lost revenue for Eversource is reduced by $486,432, the reduction for Liberty is $70,442 and the reduction for Unitil $116,046. Accuracy is important since lost revenues are cumulative, they will continue to "pancake" or accumulate each year. Based on discovery, I note that the Electric Utilities have expressed an unwillingness to alter their proposed "combined" calculation of average distribution rates.[7] However, I believe that the calculation of lost revenues is more accurate when "separated" into its component parts and I recommend that the Electric Utilities modify the calculation of average distribution rates to reflect the individual kWh and kW components. Further, since the calculation of lost revenue is relatively new, I recommend continued monitoring of the calculation going forward, particularly with respect to how to accurately link kW[8] savings to actual revenues lost. That is, if the energy efficiency measures installed are not targeted to the maximum demand, the kW determinant for billing purposes may not decrease, and the utility will still earn that revenue. My testimony is not designed to address this point; but, I recommend that a working group be established in 2018 to address this issue and incorporate findings in the 2019 annual update.

In addition, I recommend that the Utilities provide a template that shows how retirements will be tracked in order to ensure that expired measures are removed from data base that is used for purposes of calculating lost revenues. Also, I recommend that the most recent estimates of measure life should be utilized in the calculation of lost revenues. Finally, Liberty-Gas is proposing that its lost revenue mechanism will expire on the date that its

[7] Reference attached Appendix C, Staff 1-39 and Staff 1-40.
[8] As adjusted to reflect kVA metered demand, as noted in the tariffs.

revenue decoupling mechanism becomes effective. I note that, for administrative tracking purposes, Liberty-Gas is proposing a revenue decoupling mechanism in its permanent rate proceeding currently under consideration in Docket DG 17-048.

Other Issues – Program Continuity

Q. Please provide your testimony on other issues related to program continuity.

A. The Utilities are proposing several changes that my testimony addresses – i.e., budget transfers of twenty percent or less within the current budget year; removal of the 40% cap for future year commitments; and, changes to incentive levels.

Budget Transfers: With respect to budget transfers, the Utilities propose one change pertaining to notification.[9] Currently, notification is required for all budget transfer requests – i.e., if the budget transfer is 20 percent or less of the approved budget; or, if the budget transfer is greater than 20 percent of the approved budget. The Utilities are proposing to eliminate the notification requirement for budget transfers that are 20 percent or less of the approved budget; but, are proposing to keep the notification requirement if the budget transfer is above 20 percent. Given that all other existing protocols for budget transfers remain in place, I believe this change is reasonable and will enhance the Utilities abilities to transfer monies in a timely manner. However, in order to monitor the effectiveness of this change, I recommend that the Utilities incorporate a page in the Quarterly NH Saves Energy Efficiency Report that shows the original Commission approved program budgets and any transfers to and from the original program budgets. The additional page would report any transfers made – i.e., 20 percent

[9] Reference Filing, Bates 35.

or less of approved budget (not requiring notification) as well as above 20 percent (still requiring notification).

40 Percent Cap for Future Year Commitments: The Utilities propose to remove the existing 40 percent cap for future year commitments. Based on discovery,[10] the Utilities note that during 2018-2020, budgets continue to increase and the 40 percent cap is not as relevant as it was when budgets were fixed. I agree that budgets are increasing but I disagree that the elimination of the cap is appropriate. Instead, I recommend an increase in the cap, from 40 percent to 50 percent.

Changes to incentive levels: The filing, at page 36, indicates that changes to incentive levels for certain programs or measure categories could be made. In response to discovery,[11] the Utilities indicate that incentive levels would be made in a way that looks at the program as a whole, in line with best practices in the region and taking incremental costs into account in order to maximize the effectiveness of the program offerings. I believe the proposed change is reasonable and will provide added flexibility for program administrators. However, in order to monitor the changes in incentive levels, I recommend that the Utilities incorporate a page in the Quarterly NH Saves Energy Efficiency Report that shows the original Commission approved incentive levels and any changes to the original incentive levels that are made during the year.

Q. Does that complete your testimony?

A. Yes.

[10] Reference Appendix C, Staff 1-003.
[11] Reference Appendix C, Staff 1-004.