

**STATE OF NEW HAMPSHIRE  
BEFORE THE  
PUBLIC UTILITIES COMMISSION**

**Energy Efficiency Resource Standard  
Docket No. DE15-137**

Reply Testimony of

Jeffrey Loiter

On Behalf of

The New Hampshire Sustainable Energy Association, Conservation Law  
Foundation, The Jordan Institute, New England Clean Energy Council, and The  
Nature Conservancy

March 1, 2016

1 **Q. Please state your name and business address.**

2 A. My name is Jeffrey Loiter and my business address is Optimal Energy,  
3 Incorporated, 10600 Route 116, Hinesburg, Vermont, 05461.

4 **Q. On whose behalf are you testifying?**

5 A. I am testifying on behalf of the New Hampshire Sustainable Energy  
6 Association, Conservation Law Foundation, The Jordan Institute, New  
7 England Clean Energy Council, and The Nature Conservancy (“NHSEA et  
8 al”).

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

10 A. I am a Partner in Optimal Energy, Inc., a consultancy specializing in  
11 energy efficiency and utility planning. In this capacity, I direct and perform  
12 analyses, author reports and presentations, manage staff, and interact with clients  
13 to serve their consulting needs.<sup>1</sup> My clients include state energy offices and  
14 efficiency councils, utilities and third-party program administrators, and non-  
15 governmental organizations. For example, I participate on the consultant team  
16 supporting the work of the Massachusetts Energy Efficiency Advisory Council,  
17 which guides the development of energy efficiency plans by the state’s investor-  
18 owned gas and electric utilities and energy providers and monitors the  
19 implementation of these plans. I have recently begun providing similar services to  
20 the newly-formed Delaware Energy Efficiency Advisory Council.

21 **Q. Are you the same Jeffrey Loiter who filed testimony in this docket on**  
22 **December 9, 2015?**

23 A. Yes. I also presented during the EERS investigation in DE 15-072 at the  
24 invitation of PUC Staff.

25 **Q. How is your reply testimony organized?**

26 A: My reply testimony addresses the following four topics.

27       ▪ Areas of agreement between NHSEA et al and the Staff and/or Joint  
28       Utilities.

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<sup>1</sup> See, e.g. [http://www.epa.gov/cleanenergy/documents/suca/potential\\_guide.pdf](http://www.epa.gov/cleanenergy/documents/suca/potential_guide.pdf) and  
[http://epa.gov/cleanenergy/documents/clean\\_energy\\_fund\\_manual.pdf](http://epa.gov/cleanenergy/documents/clean_energy_fund_manual.pdf).

- 1           ▪ The treatment of lost revenue in the Staff’s EERS “model” as presented in
- 2           their testimony and data responses, including my opinion that lost revenue
- 3           is a not cost of efficiency programs, and the appropriateness of several
- 4           adjustments to lost revenue proposed by Staff.
- 5           ▪ The Joint Utilities approach to determining EERS funding amounts and
- 6           associated savings targets.
- 7           ▪ The need for independent evaluation, monitoring, and verification of
- 8           energy efficiency programs.

9   **I. AREAS OF AGREEMENT**

10 **Q: Based on your review of the testimony filed by Staff and the Joint Utilities,**  
11 **are there any areas of agreement in this docket?**

12 A: Yes, there are. My understanding is that both Staff and the Joint Utilities support  
13 an initial set of firm three-year goals for both electric and gas utilities, that the  
14 utilities are currently best-positioned to continue delivering energy efficiency  
15 programs, and that continued or potentially expanded oversight and guidance of  
16 efficiency efforts in New Hampshire by a statewide group of stakeholders would  
17 be beneficial.

18 **Q: Are there areas where there are clear areas of disagreement?**

19 A: Yes, there are several, most of which relate to the treatment of lost revenues,  
20 which I will discuss in detail below.

21 **II. TREATMENT OF LOST REVENUE**

22 **Q. Before we address the topic of lost revenue, please summarize the**  
23 **information to which you will be referring in your testimony.**

24 A: I will be referring to the testimony filed by the Joint Utilities and the Staff on 9  
25 December 2015, including corrections submitted by Staff on 11 December; the  
26 responses to data requests propounded by Joint Utilities, Staff, NHSEA, and OEP;  
27 and clarifications made regarding those documents provided during a technical  
28 session.

1 **Q: At the most fundamental level, leaving aside details of how it should be**  
2 **calculated and remunerated to a utility, do you support the concept of lost**  
3 **revenue recovery?**

4 A: Yes, absolutely. Regulated utilities have had their rates set based on a forecast of  
5 energy sales. When they are subsequently directed to take action to reduce those  
6 sales by implementing energy efficiency programs, the fixed costs that were being  
7 recovered by a volumetric charge will no longer be fully recovered. A mechanism  
8 to provide the utility with these lost revenues simply ensures that their fixed costs  
9 are recovered in the amount previously approved.

10 **Q: Does this provide the utility with greater overall revenue than if they had not**  
11 **implemented energy efficiency programs?**

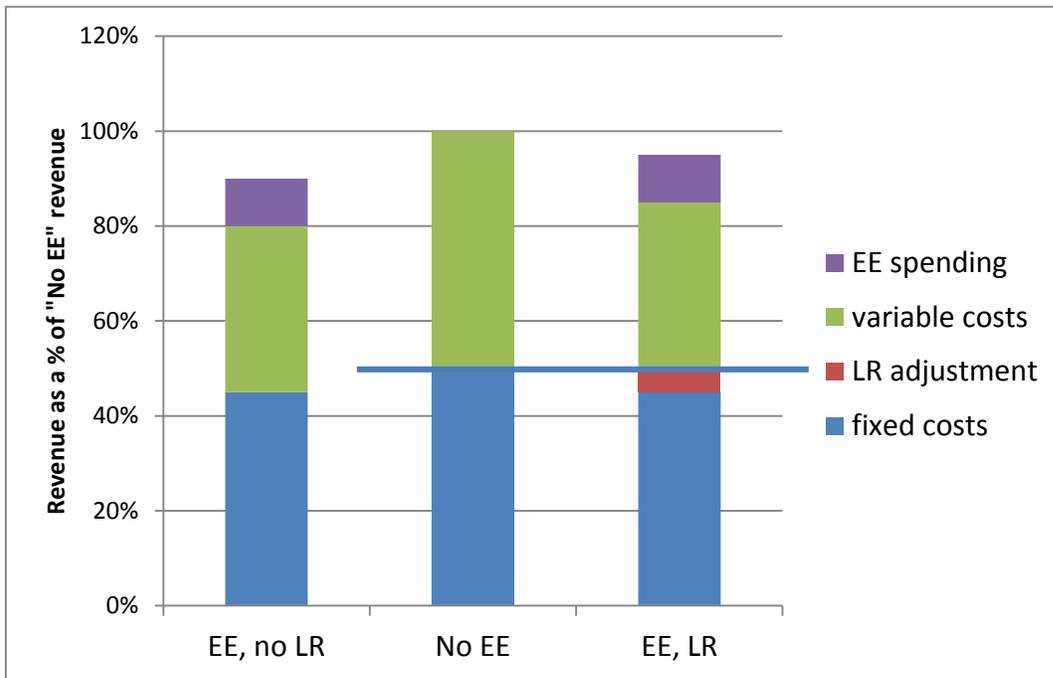
12 A: No. When implemented correctly, a lost revenue recovery mechanism will  
13 provide the utility with the same amount of revenue to cover its fixed costs in  
14 either case.

15 **Q: But if these lost revenues are collected from ratepayers as a separate charge**  
16 **on their bill, are they additional revenues to the utility, at additional cost to**  
17 **the ratepayer?**

18 A: No. The increment to customers' rates is offset by the decrease in total customer  
19 usage resulting from the efficiency programs. It is true that for those customers  
20 whose usage remains the same, the lost revenue recovery represents an additional  
21 cost. For those whose usage decreases, their bills will decrease. Such a change in  
22 the allocation of fixed costs would also occur if some number of customers  
23 reduced their usage of their own accord. In that case, the utility's rates would have  
24 to increase to ensure that fixed costs were recovered in full, but this would occur  
25 during a distribution rate case.

26 **Q: In summary then, you are stating that lost revenues do not represent an**  
27 **additional cost to ratepayers as a whole, correct?**

28 A: Yes. The figure below may help to illustrate this. It shows how utility revenue  
29 changes in the case of a cost-effective energy efficiency program, both with and  
30 without lost revenue recovery.



1

2 **Q: If lost revenue is not an additional cost to ratepayers, how should it be**  
 3 **accounted for in an analysis of the cost-effectiveness of energy efficiency**  
 4 **programs?**

5 A: The short answer is that in three of the four widely-recognized tests of cost-  
 6 effectiveness, lost revenues are not included as a cost. When lost revenue is  
 7 recognized as a shift in costs from one group to another, it should be clear that  
 8 this shift occurs completely within the bounds of both the utility cost test and the  
 9 total resource cost test, and therefore should be excluded. The participant cost test  
 10 does not include lost revenues, although they are implicitly part of the bill  
 11 reduction participants realize. They do appear in the ratepayer impact measure  
 12 (RIM) test as a cost to non-participants.

13 **Q: Can you provide additional information regarding the total resource cost test**  
 14 **and how it is conducted?**

15 A: Yes. The total resource cost test, or TRC, which the Commission currently uses  
 16 for the CORE programs, is designed to address the complete picture of all costs  
 17 and benefits resulting from energy efficiency programs that can be monetized and  
 18 that are realized by the utility and all of its customers. The definition of the TRC

1 is usually attributed and referenced to the California Standard Practice Manual. It  
2 states that “the primary strength of the Total Resource Cost (TRC) test is its  
3 scope” and that it “provides a useful basis for comparing demand- and supply-side  
4 options.”<sup>2</sup> The benefits calculated in the TRC are the avoided supply costs, based  
5 on reduction in transmission, distribution, generation, and capacity costs valued at  
6 marginal cost for the periods when there is a load reduction. The costs in the test  
7 are the program costs paid by both the utility and the participants plus any  
8 increase in supply costs for periods in which load is increased.

9 **Q: Is the TRC the appropriate test upon which the NH Public Utilities**  
10 **Commission should base it’s assessment of whether an energy efficiency**  
11 **program is a cost effective use of ratepayer money?**

12 A: Yes.

13 **Q: Commission Staff have stated that lost revenue should be treated as a cost**  
14 **and included in the cost portion of the benefit/cost test (Staff testimony, page**  
15 **43) and note that this is “consistent with the Commission’s practice of**  
16 **treating PI [performance incentives] as a cost for purposes of calculating**  
17 **TRC.” (Staff response to data request TS-5) Do you have any comment on**  
18 **this?**

19 A: Yes. Including lost revenue as a cost in the TRC is actually not consistent with the  
20 practice of treating performance incentives (PI) as a cost, nor is it consistent with  
21 the application of the TRC in general. PI earned by a utility is truly an additional  
22 cost of implementing energy efficiency programs; these monies would not have  
23 been collected from ratepayers in the absence of the programs. In contrast, lost  
24 revenue does not represent an additional cost of the program, but a re-allocation  
25 of fixed costs to all ratepayers based on changes in consumption resulting from  
26 energy efficiency programs.

27 **Q: Are there other areas where the Staff’s treatment of performance incentives**  
28 **and lost revenue is inconsistent?**

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<sup>2</sup> *California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects.*  
Governor’s Office of Planning and Research. State of California. July 2002.

1 A: Yes. The Staff responded to a data request from the February 16<sup>th</sup> technical  
2 session (TS-5) by stating that they do not recommend a change to the cap on PI as  
3 expressed as a percentage of approved program spending. Although the response  
4 does not explicitly state so, based on the question and the Staff’s response, I  
5 interpret the Staff’s position to be that lost revenue should not be included in  
6 “approved program spending” for purposes of calculating the cap on performance  
7 incentives. I agree with this position. More importantly, this clearly highlights the  
8 inconsistency of the Staff’s position, where lost revenue would be considered a  
9 cost for the purposes of the TRC but not for purposes of calculating PI.

10 **Q: Are you familiar with any jurisdictions in which the public utility**  
11 **commission includes lost revenue in the TRC as a means of assessing energy**  
12 **efficiency programs?**

13 A: No, I am not. In researching this issue further, I was unable to locate any  
14 statement to this effect, which I believe is attributable to the fact that the  
15 components of the various cost-effectiveness tests are widely agreed upon, largely  
16 based on the California document referenced earlier. The TRC does not include  
17 lost revenues. The test that does is the RIM test.

18 **Q: Are you aware of any guidance specific to New Hampshire regarding cost-**  
19 **effectiveness tests?**

20 A: Yes. In response to an order from the New Hampshire Public Utilities  
21 Commission, a working group was established to address a number of issues  
22 related to energy efficiency.<sup>3</sup> The New Hampshire Energy Efficiency Working  
23 Group Submitted its report on July 6, 1999. In it, the group recommended one test  
24 for energy efficiency cost-effectiveness, based largely on the total resource cost  
25 test. As shown in Table 4 of that report, reproduced here, lost revenue is not  
26 included in the formulation of the test.

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<sup>3</sup> Order No. 22,875 in DR 96-150: Electric Utility Restructuring on Requests for Rehearing, Reconsideration and Clarification.

<b>Table 4: Proposed New Hampshire Cost-effectiveness Test</b>	
	<b>Proposed New Hampshire Cost-effectiveness Test</b>
<b>Benefits:</b>	
Avoided generation, transmission & distribution costs for:	
A. Program participants	Yes
B. Market effects (e.g., spillover, post-program adoptions)	Yes
Customer Benefits (including O&M)	Yes
Quantifiable avoided resource costs (e.g., water, natural gas)	Yes
Adder for other non-quantified benefits (e.g., environmental and other benefits)	15%
<b>Costs:</b>	
Program costs (e.g., incentives, admin, monitoring, evaluation) for:	
A. Program participants	Yes
B. Market effects (e.g., spillover, post-program adoptions)	Yes
Customer Costs (including O&M)	Yes
Quantifiable additional resource costs (e.g., water, natural gas)	Yes
Utility performance incentives	Yes <sup>9</sup>

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2 **Q: Has the Staff provided any information regarding the inclusion of lost**  
 3 **revenue in the TRC test in other jurisdictions?**

4 A: No. As stated in Staff’s response to data request OEP 1-8, Staff did not research  
 5 this issue.

6 **Q: You mentioned that lost revenue does not appear in three of the four**  
 7 **standard cost-effectiveness tests. Can you describe the fourth test in which it**  
 8 **does appear?**

9 A: The ratepayer impact measure test, also called the RIM or non-participant test,  
 10 assesses costs and benefits of efficiency programs to only those ratepayers who do  
 11 not participate in the program. Because some of the utilities fixed costs have been  
 12 shifted from participants to non-participants, this test includes lost revenues as a  
 13 cost to the latter. Most energy efficiency programs therefore show greater costs  
 14 than benefits for non-participants under this test. This makes intuitive sense. If

1           your share of total electric load increases, so too does your share of the total costs  
2           of serving that load. This concept of cost causality underlies many aspects of  
3           ratemaking. I also note that non-participants do receive benefits from the overall  
4           reduction in energy consumption driven by participants' investments in  
5           efficiency. These effects are often not captured in cost-effectiveness tests,  
6           although this is beginning to change.

7       **Q: Are there other issues with how the Staff is treating lost revenue in their**  
8       **proposal that you would like to address?**

9       A: Yes. The Staff's proposal includes several "adjustments" to the calculation of lost  
10       revenue that are, in my opinion, either unnecessary or inappropriate. These  
11       include adjustments for fuel-switching, measure retirement, existing program  
12       savings threshold, and an overall cap on lost revenue.

13       **Q: Let's take those one at a time. Please explain the Staff's fuel-switching**  
14       **adjustment and your position on this adjustment.**

15       A: PUC Staff raised concerns about lost revenue being recovered by Utilities when  
16       customers switch fuels, for example from natural gas or electricity for heat to  
17       biomass. Staff states that when customers install efficient gas heating and hot  
18       water equipment, they are sometimes switching from oil. This results in an  
19       increase in gas sales, which the Staff claims as the reason to omit a portion of  
20       savings from high efficiency gas heating and hot water equipment from lost  
21       revenue recovery (Staff testimony,. P. 41, lines 810-816).

22       **Q: Should some or all of the savings from installing high efficiency heating and**  
23       **hot water equipment be omitted from the calculation of lost revenue?**

24       No, it should not. First, the savings being claimed from these measures are based  
25       on the difference between new baseline efficiency gas-fired equipment and the  
26       high-efficiency unit promoted by the program. The program is not promoting  
27       fuel-switching, but the higher efficiency unit, and the fuel-switch is not  
28       attributable to the efficiency program. Second, the gas utilities' current rates are  
29       based on an assumed rate of fuel-switching and customer growth. This has been  
30       occurring for many years and will continue regardless of efficiency program

1 efforts. The increased sales from fuel-switching are therefore already factored into  
2 the utilities' rates, and should not now be excluded based on efficiency programs.

3 **Q: Please explain the Staff's measure retirement adjustment, as you understand**  
4 **it.**

5 A: The Staff's estimate of lost revenues deducts from projected savings 50% of the  
6 savings realized in an earlier year of program delivery, based on the average  
7 measure life of the programs. For example, in calculating lost revenue in 2017,  
8 Staff's approach would deduct from 2017 program savings 50% of the savings  
9 realized in 2003, assuming an average measure life of 14 years.

10 **Q: What explanation does the Staff give for this adjustment?**

11 A: As explained in Staff's direct testimony Page 40, lines 803-805, Staff believes  
12 that when older energy efficiency installations reach the end of their useful lives,  
13 the associated savings end, which results in an increase in utility revenues.

14 **Q: What is your opinion regarding this adjustment?**

15 A: I have never seen an adjustment like this. I believe this adjustment is  
16 inappropriate and that it demonstrates a lack of understanding regarding energy  
17 efficiency programs and utility load forecasting. It is certainly true that when an  
18 efficiency measure has reached the end of its effective useful life, the savings are  
19 presumed to have dissipated. Most program planners make the assumption that in  
20 the absence of continuing programs, an expiring measure will be replaced with  
21 the baseline technology. This is consistent with the way utility load forecasts are  
22 constructed, and has two effects. First, baseline technology is usually at least as  
23 efficient as the efficient technology from the previous generation. For example,  
24 baseline commercial lighting in 1997 was basic T8, while an efficient version was  
25 reduced wattage or "super" T8. In 2017 when that lighting is replaced, the  
26 baseline is at least that efficient, or perhaps even high performance T8 depending  
27 on the local energy code. Although the savings from the measure are no longer  
28 being realized, the new technology has become the baseline. Second, the utility  
29 load forecast for 2017 already accounts for previous energy efficiency programs  
30 and the expiration of their installed measures. Therefore, it is completely

1 inappropriate to assume that energy sales will increase when the efficient measure  
2 installed in 1997 expires. Rather, in the absence of continued programs, energy  
3 use remains the same as forecast.

4 **Q: Does the Staff provide any data or information to support their expiring**  
5 **measure adjustment?**

6 A: They do, but in my opinion those data do not justify their adjustment, even if  
7 leaving aside my previously noted objections to this approach. As noted in Staff's  
8 response to Joint Utility data request 1-27, their adjustment of 50% is based on  
9 data from EPA that shows more than 50 percent of refrigerators and washers  
10 purchased in the US are ENERGY STAR®. This is irrelevant to the Staff's  
11 argument. In 2014, residential appliances represented only 7% of electric program  
12 savings and 11% of gas program savings.<sup>4</sup> Going forward, appliances are being  
13 discontinued as measures within the ENERGY STAR Products program (due  
14 partly to market transformation driven by such programs). Basing the adjustment  
15 on such a small portion of the portfolio but applying it to the entirety of the lost  
16 revenue analysis is inappropriate.

17 **Q: Please explain the Staff's adjustment for existing programs savings**  
18 **threshold, and your position on this adjustment.**

19 A: PUC Staff have broached the idea of not remunerating the utilities for the lost  
20 revenue resulting from reduced sales at the level of the existing CORE Energy  
21 Efficiency Programs, implying that because the utilities have not previously  
22 recovered lost revenues at those amounts, they can continue to do so without  
23 harm. Furthermore, Staff believes this threshold level of savings from which lost  
24 revenue will not be collected should remain in effect indefinitely.

25 **Q: Would Staff's threshold adjustment encourage a robust and successful**  
26 **EERS, or support an increase in efficiency savings levels?**

27 A: No, it would do neither. The EERS provides an opportunity for New Hampshire's  
28 Utilities to increase their energy efficiency programs and as such should be  
29 encouraged to be fully committed to successful outcomes. Allowing the utilities to

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<sup>4</sup> New Hampshire CORE Energy Efficiency Programs 4<sup>th</sup> Quarter Report, NHPUC docket No. DE 12-262.

1 recover their lost revenue is an important motivator and component of reasonable  
2 ratemaking. Limiting future cost recovery based on past savings levels is arbitrary  
3 and without justification.

4 **Q: Please explain the Staff's proposed cap on lost revenue.**

5 A: Staff's model of the EERS includes a cap on lost revenue recovery of 0.5% of  
6 sales revenue. I understand this to mean that, regardless of the actual amount of  
7 utility lost revenues, the Staff's proposal would only allow recovery of lost  
8 revenue in this amount. For example, if three years of efficiency program delivery  
9 resulted in 2% savings, and therefore 2% lower recovery of fixed costs, Staff  
10 would argue that only one-quarter of those lost revenues be recovered as part of  
11 an LRAM. When asked to explain the reasoning behind this cap, the Staff  
12 responded that "the intent of the 0.5 percent cap is to ensure that windfall profits  
13 (i.e., LR that is over and above the utilities' operating costs) are not received by  
14 the utilities." (Staff response to Joint Utility data request 1-31c.). The Staff also  
15 offered the explanation that if actual savings are less than target savings, lost  
16 revenue recovery based on the target savings would result in windfall profits  
17 (Staff response to Joint Utility data request 1-30).

18 **Q: Do you believe that this is an appropriate control on lost revenue recovery?**

19 A: No, I do not, and I have never seen a cap like this. First, the 0.5% cap is arbitrary.  
20 When asked to justify this level, the Staff's response is to show that this cap will  
21 not be reached in the first "triennium" of the EERS (Staff response to Joint Utility  
22 data request 1-31a). But this finding is based on the Staff's application of other  
23 adjustments to lost revenues that I have previously shown to be inappropriate.  
24 Second, a lost revenue recovery mechanism that provides utilities with revenue  
25 based on target-level savings should also include annual true-ups of recovery  
26 amounts for actual savings once these savings have been "proven" through  
27 evaluation. This true-up mechanism serves to control the possibility of windfall  
28 profits, and NHSEA does not support a lost revenue recovery mechanism without  
29 such true-ups. Therefore, an additional, arbitrary cap on lost revenue recovery is  
30 not appropriate and may result in under-recovery of a utility's fixed costs.

1 **Q: Do you have anything else to add to the discussion of lost revenue recovery?**

2 A: Yes. PUC Staff and Joint Utilities have suggested that performance incentives and  
3 lost revenue adjustments are somewhat interconnected and should be evaluated in  
4 conjunction with one other (see, for example, Joint Utilities response to Staff 1-  
5 022). In my opinion, performance incentive calculations and lost revenue  
6 adjustments address two entirely different things, although they are both  
7 components of a broader set of policies that seek to treat energy efficiency as a  
8 true alternative to supply-side investments. The EERS proceeding is an  
9 opportunity to correct current deficiencies in both.

10 Performance incentives reward utilities for achieving specific goals related  
11 to energy efficiency programs. They are analogous to the return on investment  
12 earned by a utility when it invests in capital projects. Ideally, PI makes  
13 investments in energy efficiency as or more attractive than investment in supply  
14 side resources that would accomplish the same resource objectives. This does not  
15 necessarily mean that they PI should be equal in monetary terms to a utility's rate  
16 of return, because the risks involved in energy efficiency and supply side  
17 resources may differ.

18 Lost revenue recovery is a separate aspect of placing energy efficiency  
19 and demand side management on equal footing part with supply-side resources. If  
20 utilities are expected to invest in energy efficiency, they should be compensated  
21 for the lost revenue in a fair manner. My testimony up to this point addresses  
22 several issues related to this. I believe it is important that lost revenue be treated  
23 with transparency. An unwillingness or hesitancy to provide utilities with lost  
24 revenue recovery should not be addressed by instead providing performance  
25 incentives that are richer than is appropriate or necessary to promote excellence in  
26 DSM delivery. Conflating these two risks miscalculates the true magnitude of  
27 each, whether in favor of the utility or the ratepayers. Rather, their values should  
28 be established during program development and planning and should be kept  
29 separate. To the extent that the current level of performance incentives in New  
30 Hampshire is due in part to the fact that utilities are not able to recover lost

1 revenue, the remedy for this going forward is to address PI and LR individually in  
 2 as accurate, fair, and transparent means as possible. This may mean reducing the  
 3 current Performance Incentive levels for the EERS; the table below shows that  
 4 New Hampshire’s utilities currently receive PI at a rate greater than energy-  
 5 efficiency programs in other states.

Jurisdiction	Covered PAs	Fuels	Incentive Cap as a % of Budget
New York	All LDCs	Gas	2%
Vermont	EVT	Electric & Gas	4%
DC	DCSEU	Electric & Gas	4%
Rhode Island	National Grid	Electric	4%
Nevada			5%
Massachusetts	All IOUs	Electric & Gas	6%
Arkansas	All	Electric & Gas	7%
Connecticut	All IOUs	Electric & Gas	8%
Kentucky	Duke, KP		10%
California	PG&E	Electric & Gas	10%
<b>New Hampshire</b>			<b>12%</b>
Michigan	All IOUs	Electric & Gas	15%
Ohio			15%
Oklahoma			15%
Arizona	APS		20%
Colorado	Excel, Black Hills	Electric	20%
Texas	All IOUs	Electric	20%
Minnesota			30%

6 **II. JOINT UTILITIES METHOD OF DETERMINING EERS FUNDING AND**  
 7 **SAVINGS TARGETS.**

1 **Q: In your original testimony, you suggested targets for both gas and electric**  
2 **program savings. Is setting energy savings targets in keeping with New**  
3 **Hampshire policy?**

4 A: Yes. A 2012 Regulatory Assistance Project report on best practices in designing  
5 and implementing energy efficiency obligation schemes states that, “setting the  
6 energy saving target is the second most important stage [in designing an EERS]  
7 after deciding the policy objectives.<sup>5</sup> The NH legislature unambiguously set the  
8 policy objectives through RSA 378:37:

9 “The general court declares that it shall be the energy policy of this  
10 state to meet the energy needs of the citizens and businesses of the  
11 state at the lowest reasonable cost while providing for the reliability  
12 and diversity of energy sources; to maximize the use of cost effective  
13 energy efficiency and other demand side resources; and to protect the  
14 safety and health of the citizens, the physical environment of the state,  
15 and the future supplies of resources, with consideration of the financial  
16 stability of the state's utilities.”

17 Therefore, setting a savings target in New Hampshire as part of an EERS is  
18 supportable and prudent.

19 **Q: Did other parties suggest electric and gas savings targets in their filing?**

20 A: Yes, the Staff and the Joint Utilities presented multiple scenarios of savings  
21 targets, although the Joint Utilities only provided electric scenarios and further  
22 asserted that program funding levels must be set before savings targets can be set.

23 **Q: Please summarize the Joint Utilities suggested approach to setting savings**  
24 **targets.**

25 A: The Joint Utilities suggest in their response to OEP DR 1-001 that all achievable  
26 cost-effective efficiency can be defined by “Potentially Obtainable EE,” the most  
27 conservative scenario defined in the 2009 GDS report. This scenario states that  
28 1,404 million kWh could be saved by 2018, which represents about 13% of 2016

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<sup>5</sup> Regulatory Assistance Project. 2012. *Best Practices in Designing and Implementing EE Obligation Schemes*.

1 sales, slightly less for 2018 sales projections.<sup>6</sup> From 2009 through 2016, the Joint  
2 Utilities programs will save approximately 451 million kWh, about one-third of  
3 the “Potentially Obtainable” savings. The annual savings rate has been relatively  
4 constant, ranging from 50 to 57 million kWh each year except for 2014, which  
5 had savings of almost 68 million kWh.

6 The Joint Utilities testimony presents three short-term scenarios for  
7 electric savings targets. The highest is based on a doubling of the current SBC  
8 funding rate, which the filing indicates would generate savings of between 72.3  
9 and 94.3 million kWh per year. While the GDS study is several years old at this  
10 point, it is clear that the past several years have seen efficiency savings well  
11 below the most conservative projection of cost-effective and achievable savings.  
12 More importantly, given that cost-effective energy efficiency savings, by  
13 definition, provides system-wide benefits in excess of costs, it is likely that further  
14 savings beyond the Joint Utilities’ highest scenario are still cost-effective and  
15 therefore required by New Hampshire’s governing energy policy.

16 **Q: Based on this, what is your recommendation regarding savings targets and**  
17 **funding levels?**

18 A: None of the information presented by the Staff and the Joint Utilities in their  
19 testimony and responses to data requests changes my opinion that a three-year  
20 savings target of 3.1%, as presented in my direct testimony, is appropriate and in  
21 the best interest of New Hampshire ratepayers. Savings targets must be set  
22 optimally for all stakeholders: utilities, participants, non-participants, etc. I urge  
23 the Commission to set savings targets for an EERS that are both optimal and  
24 practical for New Hampshire based on the significant net benefits to all  
25 stakeholders, and then to approve a plan to achieve those targets by allowing  
26 appropriate spending levels. These spending levels represent investments that will  
27 lower total energy costs to all NH ratepayers.

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<https://www.puc.nh.gov/Electric/GDS%20Report/NH%20Additional%20EE%20Opportunities%20Study%202019-09%20-%20Final.pdf>. Page 16.

1                   In the interim, I also suggest that the Commission allow for an increase in  
2                   program spending, and therefore savings, via the existing SBC until such time as  
3                   the EERS takes effect.

4   **III. NEED FOR INDEPENDENT EM&V**

5   **Q: Proposals and testimony from some parties in this proceeding have differed**  
6   **on their perspective of who should provide Evaluation, Monitoring and**  
7   **Verification services on the EERS Program. Please reiterate your position on**  
8   **this issue**

9   A: As New Hampshire’s energy-efficiency programs mature from the Core Programs  
10   to an EERS, ideally one with greater savings and benefits for New Hampshire  
11   ratepayers, there will be continued need for robust third party independent EM&V  
12   from qualified providers. This is considered a “best practice” that is already in  
13   place in neighboring jurisdictions. These EM&V services should be procured  
14   through the Commission and overseen by both the Commission and the EERS  
15   Stakeholder board. The costs of EM&V should be considered part of the overall  
16   program budget, as they are in the CORE programs, and all programs should be  
17   evaluated at least within each three-year program cycle.

18   **Q: Does this conclude your reply testimony?**

19   A: Yes.