

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

**DOCKET NO. DE 14-238**

**2015 PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
RESTRUCTURING AND RATE STABILIZATION AGREEMENT**

**DIRECT TESTIMONY OF ERIC H. CHUNG**

Redacted in Support of Litigation Settlement  
(Redacted Testimony Indicated in Gray Highlighting)

**July 6, 2015**

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

**DOCKET NO. DE 14-238**

**2015 PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
RESTRUCTURING AND RATE STABILIZATION AGREEMENT**

**DIRECT TESTIMONY OF ERIC H. CHUNG**

**July 6, 2015**

## Table of Contents

<b>Introduction and Qualifications.....</b>	<b>1</b>
<b>Purpose of Testimony.....</b>	<b>2</b>
<b>Estimated Customer Savings.....</b>	<b>3</b>
<b>Stranded Cost Recovery Charge.....</b>	<b>12</b>
<b>Energy Service Rate.....</b>	<b>17</b>
<b>Distribution Rate Provisions .....</b>	<b>19</b>
<b>Clean Energy Provisions.....</b>	<b>.22</b>
<b>Attachment EHC-1</b>	
<b>Customer Savings Exhibit</b>	
<b>Attachment EHC-2</b>	
<b>Forecasted Scrubber Deferral Balance</b>	

1 **INTRODUCTION AND QUALIFICATIONS**

2 **Q. Please state your name, business address and position.**

3 A. My name is Eric H. Chung. My business address is 1 NSTAR Way, Westwood, MA  
4 02090. My position is Director of Revenue Requirements and Regulatory Projects at  
5 Eversource Energy.

6 **Q. What are your current responsibilities?**

7 A. I am currently responsible for all regulatory activity affecting the financial requirements  
8 of Eversource's operations in New Hampshire, plus special enterprise-wide regulatory  
9 initiatives across Eversource's operating businesses in the states of Connecticut,  
10 Massachusetts, and New Hampshire.

11 **Q. Have you previously testified before the Commission?**

12 A. Yes, I have most recently testified before the Commission in Docket No. DE 11-250  
13 (Investigation of Merrimack Station Scrubber Project and Cost Recovery). I have  
14 previously testified before the Commission in Docket Nos. DE 13-274 (2014 Stranded  
15 Cost Recovery Charge Rate Change), DE 13-275 (2014 Default Energy Service Rate  
16 Change) and DE 13-108 (Reconciliation of Energy Service and Stranded Costs for  
17 Calendar Year 2012).

18 **Q. Please describe your educational background.**

19 A. I have a Bachelor of Arts in physics with honors from Harvard University, as well as a  
20 Master's of Business Administration in finance and economics from the University of  
21 Chicago Booth School of Business.

1 **Q. Please describe your professional experience.**

2 A. I was appointed to my current position at Eversource Energy in February 2015. From  
3 August 2013 to January 2015, I was Director of Revenue Requirements for Eversource's  
4 operating companies in both Massachusetts and New Hampshire, including Public  
5 Service Company of New Hampshire ("PSNH" or the "Company"). From May 2011 to  
6 August 2013, I was a Senior Manager in the Power Utilities Advisory practice at Ernst  
7 and Young LLP. From July 2009 to April 2011, I worked for PacifiCorp, a vertically-  
8 integrated electric utility based in Portland, Oregon serving approximately 1.7 million  
9 customers across six states in the Western United States. At PacifiCorp, my primary role  
10 was Director of Environmental Policy and Strategy, and I also held leadership roles in  
11 PacifiCorp's Transmission and Corporate Finance departments. I have also served as an  
12 Associate Partner in the Utilities practice at Oliver Wyman, a Senior Engagement  
13 Manager in the Power practice at Strategic Decisions Group, and a Senior Programmer  
14 Analyst at Goldman Sachs. I have approximately eighteen years of relevant management  
15 consulting and industry experience, with most of my career dedicated to the power and  
16 utilities sectors.

## **PURPOSE OF TESTIMONY**

17 **Q. What is the purpose of your testimony?**

18 A. The purpose of my testimony is to provide support for the 2015 Public Service Company  
19 of New Hampshire Restructuring and Rate Stabilization Agreement (the "Settlement

1 Agreement”) from a financial analysis perspective. In my testimony, I will cover the  
2 following topics:

- 3 I. Estimated customer savings
- 4 II. Stranded Cost Recovery Charge
- 5 III. Energy Service Rate
- 6 IV. Distribution Rate provisions
- 7 V. Clean energy provisions.

8 **ESTIMATED CUSTOMER SAVINGS**

9 **Q. Did you estimate the savings to customers resulting from the Settlement**

10 **Agreement?**

11 **A. Yes, I did.**

12 **Q. Please summarize the results of your analysis.**

13 **A. As stated in the signed Term Sheet dated March 13, 2015, customer savings were**  
14 **estimated to be on the order of \$300 million over the first five years following an asset**  
15 **divestiture (“Divestiture”) of the PSNH generating assets (“Generating Assets”)<sup>1</sup>, the**  
16 **date for which is assumed for simplicity to be January 1, 2017. Under current**  
17 **assumptions, customer savings are estimated on a preliminary basis to be approximately**  
18 **\$379 million through the first five years following a January 1, 2017 Divestiture, which**  
19 **include a placeholder estimate of benefits attributed to PSNH’s agreement to not file a**

---

<sup>1</sup> The Generating Assets include: Merrimack Station, Newington Station, Schiller Station, nine hydroelectric stations and two remote combustion turbine sites.

1 distribution rate case application with rates effective before July 1, 2017. Moreover,  
2 customer savings are estimated to be approximately \$1.2 billion through the first 15 years  
3 following Divestiture.

4 **Q. Please provide a high-level description of how your estimate of customer savings**  
5 **was derived.**

6 **A.** The primary source of the data for the savings estimate was the April 1, 2014 study  
7 conducted by La Capra Associates (“La Capra”) as part of Docket No. IR 13-020. The  
8 La Capra study contained forecasts of prices for PSNH default Energy Service (“ES”) as  
9 well as that of competitively-supplied electricity along with information related to the  
10 Burgess Biomass and Lempster Wind PPA’s and the estimated selling price of the  
11 generation assets.

12 The savings figure was calculated by comparing the estimated cost of energy for  
13 customers under the current paradigm where approximately 48% of customer load is  
14 served by PSNH’s Energy Service rate and 52% of the customer load is served by  
15 competitive suppliers, versus the cost of energy for customers under a post Divestiture  
16 scenario where PSNH’s generation assets are divested and resulting stranded costs are  
17 securitized and recovered through the Stranded Cost Recovery Charge (“SCRC”) and  
18 100% of customer load is served by the competitive market (whether by a competitive  
19 supplier or through a default service procurement). Furthermore, there were assumed  
20 savings associated with the two-year rate case stay-out. The table below provides a high  
21 level illustration of the cost under each scenario:

Component	Curent Paradigm	Post-Divestiture
Energy costs	~48% at ES and ~52% at competitive market (based on 2014 billed sales)	100% at competitive market
Stranded costs	N/A	Rate Reduction Bonds (principal, interest, and fees) and above/below market cost of Burgess and Lempster PPA's, tax stabilization payments, and other Divestiture costs
Distribution costs	PSNH entitled to file distribution rate case with rate effective 7/1/2015	Distribution rate case stay-out through 6/30/2017; continuation of funding for Reliability Enhancement Program ("REP")

1 **Q. What are the key financial modeling assumptions you used?**

2 **A.** The most significant financial modeling assumptions contained in my analysis relate to:  
3 1) the estimated generation assets sale price; 2) forecasted competitive market energy  
4 rates; 3) forecasted PSNH's energy service rates; and 4) costs associated with the Burgess  
5 and Lempster PPA's. All of these assumptions come directly from the La Capra Study.  
6 The additional assumptions related to PSNH asset values such as plant, fuel and materials  
7 are per PSNH records and are listed on Page 3 of Exhibit EHC-1.

8 **Q. Please introduce and explain your customer savings exhibits.**

9 **A.** The customer savings exhibits provided as Exhibit EHC-1 calculate the estimated savings  
10 that will inure to customers from implementing the Settlement Agreement. Page 1 of

1 Exhibit EHC-1 calculates the customer savings based on the status quo where PSNH  
2 continues to own generation versus the post-Divestiture environment where customers'  
3 power is sourced directly from the market. As mentioned above, this energy savings is  
4 offset by an increase in the SCRC and by a rate case provision of the Settlement  
5 Agreement. Page 2 of Exhibit EHC-1 estimates the rate impact by rate class utilizing the  
6 new revenue requirement allocation per the Settlement Agreement. Page 3 of Exhibit  
7 EHC-1 lists all of the financial assumptions and the source for the assumptions. Page 4  
8 of Exhibit EHC-1 calculates the estimated stranded cost and the estimated amount that  
9 will need to be securitized, consistent with the requirements of Senate Bill 221 as passed  
10 by the New Hampshire Senate and House of Representatives during the 2015 New  
11 Hampshire Legislative Session. Pages 5 and 6 of Exhibit EHC-1 illustrates the estimated  
12 principal, interest, fees and ongoing cost by month and year that will result from the  
13 stranded cost being securitized.

14 **Q. Will the Company forego earnings as a result of divesting its generation fleet?**

15 A. Yes. To the benefit of customers, the Company will be foregoing approximately \$360  
16 million in generation earnings over the fifteen years following Divestiture. This estimate  
17 is based on current investments at the allowed generation after tax return on equity of  
18 9.81 percent.

19 **Q. What was your assumption for the estimated sale proceeds from the Divestiture?**

20 A. The estimated sale proceeds of \$225 million for PSNH's generation assets were derived  
21 from the analysis provided in the La Capra study. While I have made no adjustments to

1 this estimate, I make the general observation that there have been significant increases in  
2 the value of forward capacity in the ISO-NE market that have occurred subsequent to the  
3 La Capra study, and it is possible that the actual sale proceeds will be higher than what  
4 La Capra estimated.

5 **Q. How sensitive are your results to the sale proceeds assumption?**

6 A. While a true sensitivity analysis cannot be performed as a matter of practicality, one can  
7 demonstrate that neither the five-year nor the 15-year customer savings estimates are  
8 likely to be highly sensitive to the sale proceeds. For illustrative purposes, I held all other  
9 assumptions constant while I varied the sale proceeds from \$150 million to \$450 million  
10 in increments of \$75 million. As the table below reflects, under this range of sale  
11 proceeds, the customer savings estimates for both timeframes remain reasonably close to  
12 those based on La Capra's sale proceeds of \$225 million, which as stated above yielded  
13 estimated customer savings through 2021 and 2031 of \$379 million and \$1.2 billion  
14 respectively.

15

Sale proceeds (\$M)	Est. customer savings through 2017 (\$M)	Est. customer savings through 2031 (\$M)
150	344	1,119
<b>225</b>	<b>379</b>	<b>1,211</b>
300	413	1,303
375	448	1,395
450	482	1,486

1 **Q. What is your assumption for the net plant balance of PSNH's generation plants that**  
2 **will be divested?**

3 A. Because our analysis presumes that securitization commences on January 1, 2017, we  
4 estimated net plant balance as of December 31, 2016. Rolling forward current net plant  
5 balances to December 31, 2016, we used \$636.2 million as the estimate of the net plant  
6 balance for securitization purposes.

7 **Q. Please describe your assumptions for the securitization interest rate and term.**

8 A. Our estimates use a weighted-average securitization bond interest rate of 3.0%. This rate  
9 was provided by the Eversource Corporate Finance department. We assumed these  
10 bonds to have a 15-year term.

11 **Q. Please describe your assumptions for Divestiture transaction costs.**

12 A. One-time issuance costs for the new RRBs were estimated to be \$8 million. Recurring  
13 annual financing costs were estimated to be \$890,000. Both estimates were provided by  
14 the Eversource Corporate Finance department.

15 **Q. The Settlement Agreement includes a provision to provide certain "tax stabilization**  
16 **payments" to affected municipalities. Please describe the agreement for such**  
17 **property tax stabilization payments and the cost assumptions used in your**  
18 **calculations.**

19 A. To help ensure economic stability of New Hampshire municipalities impacted by the  
20 Divestiture of PSNH's Generating Assets, PSNH has agreed to make property tax

1 stabilization payments. Those payments ramp down on a straight-line basis and phase  
2 out over a period of three tax years following divestiture to the municipalities where the  
3 Generating Assets listed in Section IV(C) of the Settlement Agreement are located. This  
4 will only occur if the sales price for that municipality's generating asset is less than the  
5 baseline assessed value.

6 In the first year following Divestiture, the property tax stabilization payment amount  
7 shall be the difference in taxes between the baseline assessment and the new market value  
8 assessment established by the municipality based upon the Generating Asset's purchase  
9 price. This shall be the "initial amount." In the second year following Divestiture, the  
10 property tax stabilization payment amount shall equal two-thirds of the initial amount. In  
11 the third year following Divestiture, the final property tax stabilization payment amount  
12 shall equal one-third of the initial amount.

13 Using the La Capra estimated asset sales prices, first-year tax stabilization payments were  
14 estimated to be approximately \$3.5 million by the Eversource Tax department. In  
15 concert with the methodology specified above, second- and third-year tax stabilization  
16 payments were estimated to be approximately \$2.4 million and \$1.2 million respectively.  
17 If the assets sell at prices higher than what La Capra has estimated, the ultimate tax  
18 stabilization payment amounts would decrease from these estimates.

1 **Q. New Hampshire law requires that employee protections be provided in the event**  
2 **PSNH's generation assets are divested. Please describe how the Settlement**  
3 **Agreement implements the required employee protections and the cost assumptions**  
4 **used in your calculations.**

5 A. Under RSA 369-B:3-b, employees who are affected by the Divestiture of PSNH's  
6 generation plants are entitled to employee protections. Mr. Smagula describes the  
7 protections that affected employees will be entitled to in his testimony. If all of PSNH's  
8 generation business unit employees lost their jobs at the time of Divestiture, Eversource  
9 Human Resources estimates that the total separation and transition costs would be  
10 approximately \$32.7 million. Based on Eversource's experience with previous  
11 divestitures, a reasonable rule of thumb is to use one-third of total costs as a placeholder  
12 for employee separation and transition costs. Hence, a placeholder estimate of \$10.9  
13 million for employee separation and transition costs was used in our analysis.

14 **Q. Please describe other cost categories and regulatory assets / liabilities in your model**  
15 **to be securitized.**

16 A. The Settlement Agreement uses securitization financing of stranded costs and transaction  
17 related costs as a significant method to achieve cost savings for customers. Mr. Lembo  
18 and Ms. O'Neil describe the securitization financing process in their testimony.

19 The primary stranded cost to be recovered via securitization would be any difference  
20 between the sale proceeds and net book value of the Generating Assets to be sold. There  
21 are also a number of other costs and regulatory assets / liabilities associated with the

1           Generating Assets that would be securitized. Based on current knowledge, these include  
2           (but ultimately may not be limited to) the following: 1) fuel; 2) materials and supplies; 3)  
3           employee separation and transition costs; 4) transfer of the pension and PBOP regulatory  
4           asset; 5) deferred tax reserve; 6) asset retirement obligations, unamortized debt expense,  
5           debt premium, and/or losses on reacquired debt; 7) “make whole premiums” on debt  
6           redemptions; and 8) other Divestiture-related costs, including all professional services  
7           related to the Divestiture plus a contingency for miscellaneous recoverable costs<sup>2</sup>. The  
8           current assumptions for these items are documented on Page 3 of Exhibit EHC-1.  
9           Updates to these assumptions, plus the inclusion of any additional balances and ongoing  
10          costs to be recovered, will be reflected in the Company’s regulatory filing seeking  
11          Commission approval of the winning bidder(s) as well as the corresponding financing  
12          application.

13   **Q.    What are your overall conclusions from your analysis?**

14    A.    My conclusion is that the Settlement Agreement is clearly in the economic interest of  
15          PSNH’s distribution customers. My preliminary savings estimates, which as previously  
16          stated are driven primarily by the results contained in the La Capra Study, show that  
17          PSNH’s distribution customers save hundreds of millions of dollars in energy costs over  
18          the first five years following Divestiture, and over a billion dollars over the first 15 years  
19          following Divestiture. Furthermore, I conclude that the order of magnitude of these

---

<sup>2</sup> Professional services include (but are not limited to) the following: legal, consulting, environmental studies, technical studies, other generation-related services, and auction management. Miscellaneous recoverable divestiture-related costs may include (but not be limited to) the following: stranded generation administrative costs, environmental expenses, visual improvements, and additional studies.

1 estimates is unlikely to be highly sensitive to the sale proceeds, which suggests that  
2 customers will realize substantial savings under a wide range of sale outcomes.

3 **Q. Please describe your plans for updating your analysis.**

4 A. Once the auction has been completed and the winning bids have been determined, the  
5 preliminary savings estimates and corresponding rate calculations contained in my  
6 exhibits will be updated using the final sale proceeds. In addition, all of the Company  
7 financial assumptions and supporting calculations reflected in my analysis will be  
8 reviewed and refined for that submission. The Company's financing application seeking  
9 approval of the securitization of stranded costs will also be submitted at that time.

## 10 **STRANDED COST RECOVERY CHARGE**

11 **Q. Please describe the components of the existing SCRC.**

12 A. The current SCRC recovers certain costs under the authorities contained in RSA Chapters  
13 374-F and 369-B. The 1999 PSNH Restructuring Settlement, approved in Order No.  
14 23,549, defined PSNH's stranded costs and categorized them into three different parts  
15 (i.e., Parts 1, 2 and 3). The Part 1 cost was composed of the RRB Charge which was  
16 calculated to recover the principal, net interest, and fees related to Rate Reduction Bonds.  
17 The Part 1 costs were fully amortized in May 2013. Part 2 costs are "ongoing" stranded  
18 costs consisting primarily of the over-market value of energy purchased from  
19 independent power producers ("IPPs") and the amortization of payments previously made  
20 for IPP buy-downs and buy-outs as approved by the Commission. Under the 1999

1 Settlement, Part 3 costs, which were primarily the amortization of non-securitized  
2 stranded costs, were at-risk for full recovery; those costs were recovered fully in June  
3 2006.

4 **Q. Please describe the new components of the SCRC post-Divestiture.**

5 A. As stated in the Settlement Agreement, the SCRC will be a non-bypassable charge as  
6 provided in RSA 374-F:3 and RSA 369-B:4, IV to recover PSNH's stranded costs as  
7 approved by the Commission. The net of prudently incurred ongoing expenses and  
8 revenue requirements (including, inter alia, decommissioning, retirement, and  
9 environmental costs or liabilities) for any generating unit, entitlement or obligation that  
10 has not been sold as part of the Divestiture process and all above-market or below-market  
11 costs related to IPPs and the PPAs, employee protection-related costs, and property tax  
12 stabilization payments will be treated as stranded costs to be fully recovered through the  
13 SCRC.

14 The SCRC will recover the amortization of the securitized assets and ongoing non-  
15 securitized costs. For the purpose of establishing the SCRC, the new stranded costs will  
16 also be divided into two parts called Part 1 and Part 2. Part 1 will be the RRB Charge,  
17 and is the source of payment for RRBs. Therefore, the right to receive all collections in  
18 respect of the Part 1 charge will be sold to the SPSE, as described in Mr. Lembo's and  
19 Ms. O'Neil's testimony. Part 1 will be billed until the RRBs are paid in full. Part 2 will  
20 recover all other Non-Securitized Stranded Costs and will continue for as long as there  
21 are Non-Securitized Stranded Costs to be recovered by PSNH.

1 **Q. What stranded costs will not be recovered via securitization?**

2 A. As I just noted, Part 2 of the SCRC is necessary to recovery Non-Securitized Stranded  
3 Costs. Although the company will maximize the securitization of stranded costs, some  
4 costs will not be able to be securitized such as: 1) potential tax stabilization and employee  
5 protection payments; 2) on-going IPP and PPA costs; and 3) the final energy service  
6 over- or under-recovery deferral balance prior to the change to a competitive energy  
7 service paradigm. These costs will continue to be recovered via Part 2 of the SCRC.

8 **Q. Please explain the general process for how the projected SCRC amounts will be**  
9 **reconciled to actuals.**

10 A. As stated in the Settlement Agreement, reconciliation of Part 1 of the SCRC shall be  
11 calculated in accordance with the True-Up Mechanism described in Section IX of the  
12 Settlement Agreement as approved by the Commission. Additionally, the Settlement  
13 Agreement also states that Part 2 of the SCRC will be reconciled annually with a return at  
14 the Stipulated Rate of Return on any over-recoveries or under-recoveries of costs.

15 **Q. What will happen with the existing purchases from the Independent Power**  
16 **Producers (“IPPs”) and the Burgess and Lempster Power Purchase Agreements**  
17 **(“PPAs”)?**

18 A. Under the current model, any above-market cost of the IPPs are recovered in the SCRC,  
19 and any market cost and below-market cost are recovered through the Energy Service  
20 Rate. This methodology will be modified under the Settlement Agreement, with all

1 above-market or below-market costs related to those contracts to be reconciled in the  
2 SCRC.

3 Currently, all costs of the Burgess and Lempster contracts are recovered through PSNH's  
4 Energy Service rate as required by the present version of RSA 374-F:3. Upon  
5 completion of the Divestiture process, using the authority allowed in SB 221 the cost  
6 recovery of the Burgess and Lempster PPAs will be modified and dealt with in a manner  
7 identical to the other IPP costs, with all above-market or below-market costs related to  
8 those contracts to be reconciled in the SCRC.

9 **Q. How do the existing PPAs impact your estimated SCRC rate?**

10 A. While it is challenging to accurately estimate above- or below-market costs of the  
11 Burgess and Lempster PPAs to the SCRC, we deemed it appropriate to incorporate a  
12 levelized impact into the final net customer savings calculation. This estimate was  
13 calculated by converting the estimated NPV of the Burgess and Lempster PPAs as  
14 forecast in the La Capra Study into a levelized impact, using the 12% discount rate from  
15 the La Capra Study and the remaining years on each of the PPAs at the time the La Capra  
16 Study was conducted (i.e. 19 years for Burgess and 9 years for Lempster). The average  
17 impact across customer rate classes for the combination of the Burgess and Lempster  
18 PPAs was estimated to be 0.20 cents/kWh for the first year following Divestiture. Per  
19 Section III, Part A of the Settlement Agreement, the annual revenue requirement resulting  
20 from the above- or below-market impacts of these two PPAs is to be allocated as per the  
21 rate classes percentages specified. Illustratively, this would result in an estimated 0.07

1 cents/kWh impact to the LG customers and 0.25 cents/kWh impact to the R customers, as  
2 shown on Page 2 of Exhibit EHC-1.

3 **Q. If there are any Renewable Energy Certificate (“REC”) sales from the Burgess and**  
4 **Lempster contracts that are sold above the cost of the REC’s, how will those profits**  
5 **be refunded to customers?**

6 A. All revenues from sales of REC’s will be included in the SCRC.

7 **Q. Please explain how the allocation of the cost included in the SCRC will be collected**  
8 **from each rate class.**

9 A. SB 221 expressly provides authority to incorporate rate designs that fairly allocate the  
10 costs of Divestiture of some or all of PSNH’s generation assets among customer classes.  
11 As stated in the Settlement Agreement, the Settling Parties have agreed upon such a rate  
12 design whereby SCRC shall be recovered as a non-bypassable charge from all customers  
13 served by PSNH within its service territory. The Settlement Agreement states that the  
14 SCRC shall be allocated to PSNH’s customer classes in accordance with the following  
15 rate design:

<b>Rate class</b>	<b>% of revenue requirement</b>
LG – Large General Service (> 1,000 kW)	05.75
GV – Primary General Service ( $\leq$ 1,000 kW)	20.00
G – General Service ( $\leq$ 100 kW)	25.00
R – Residential Service	48.75
OL – Outdoor Lighting	00.50

1 **ENERGY SERVICE RATE**

2 **Q. Please describe PSNH's expected transition to competitive procurement upon**  
3 **Divestiture of the Company's Generating Assets.**

4 A. As stated in the Settlement Agreement, no later than six months after the final financial  
5 closing resulting from the Divestiture of PSNH's Generating Assets, PSNH will  
6 transition to a competitive procurement process for Default Service. PSNH has described  
7 the proposed process for its future competitive procurement in Docket No. IR 14-338,  
8 "Review of Default Service Procurement Processes for Electric Distribution Utilities,"  
9 and would implement that process, or other appropriate process as may be specifically  
10 ordered by the Commission, upon transition.

11 **Q. How does the Settlement Agreement resolve recovery of the costs of the Merrimack**  
12 **Station scrubber and how is that included in the customer savings calculation?**

13 A. As part of the Settlement Agreement, the Company has agreed to forego \$25 million of  
14 deferred equity return related to the scrubber investment. The total balance to be  
15 securitized will be reduced by this amount at the time of financial closing. Please refer to  
16 Exhibit EHC-1 Page 4, Line 4 where the \$25 million reduction in the deferral amount to  
17 be securitized has been reflected.

18 **Q. What is the estimated scrubber deferral balance?**

19 A. Assuming that the full cost of the scrubber is placed into rates on January 1, 2016, and a  
20 securitization start date of January 1, 2017, the estimated uncollected scrubber deferral

1 balance to be securitized would be \$102.6 million. The Company estimates that the  
2 scrubber deferral balance at December 31, 2015 will be \$119.7 million. Please see  
3 Exhibit EHC-2 for the supporting calculation of the \$119.7 million estimated deferral  
4 balance. According to the Settlement Agreement, a seven-year amortization of this  
5 balance will be part of Energy Service rates starting January 1, 2016. Assuming that one-  
6 seventh of the \$119.7 million scrubber deferral balance is amortized by January 1, 2017,  
7 the remaining unamortized scrubber deferral balance would be six-sevenths of \$119.7  
8 million, or \$102.6 million.

9 **Q. What is the estimated impact of the amortized scrubber deferral balance that will**  
10 **be included as part of the ES Rates on January 1, 2016?**

11 A. Using the forecasted migration per Docket No. DE 14-235 filed on June 11, 2015, the  
12 impact of the amortization rate will be 0.40 cents/kWh. Please refer to Exhibit EHC-2.

13 **Q. What is the process for permanently including the costs of the scrubber in ES rates?**

14 A. In concert with the typical ES rate-setting process, the Company expects in the fall of  
15 2015 to file an estimated ES rate for 2016 that includes the full ongoing and deferred  
16 costs of the scrubber. The ES rate, including the scrubber costs, will continue to be  
17 subject to annual reconciliation until Divestiture.

1 **DISTRIBUTION RATE PROVISIONS**

2 **Q. Please describe the Settlement Agreement’s provisions regarding a PSNH**  
3 **distribution rate case.**

4 A. In the distribution rate case settlement agreement approved in Docket No. DE 09-035,  
5 PSNH agreed to not file its next distribution rate case with rates effective earlier than July  
6 1, 2015. As part of the Settlement Agreement, PSNH has agreed to extend that rate case  
7 stay-out date by two years such that new rates would not take effect earlier than July 1,  
8 2017.

9 **Q. What are the estimated benefits to customers from the rate case stay-out?**

10 A. It is difficult to accurately quantify such benefits without conducting a full cost of service  
11 analysis, which has not been performed. Using the average of the Commission-approved  
12 rate increases in the last two PSNH rate cases (Docket Nos. DE 09-035 & DE 06-028),  
13 the benefits of the two-year stay-out could be quantified at roughly \$38.6 million per  
14 year, or \$77.2 million over the two years of the stay-out. These figures appear on Line 19  
15 of Exhibit EHC-1, Page 1.

16 **Q. Are the Reliability Enhancement Program (“REP”), major storm cost recovery, and**  
17 **exogenous events provisions of the rate case settlement retained?**

18 A. Under the Settlement Agreement, the Settling Parties have agreed to the continuation of  
19 REP along with continuation of the current major storm cost recovery and exogenous  
20 events provisions.

1 **Q. Please discuss how REP will be impacted by the Settlement Agreement.**

2 A. Reliability measures have improved significantly since REP began back in 2007, and the  
3 continuation of funding for this program should lead to continued increased reliability for  
4 PSNH customers. The Settlement Agreement calls for a REP rate filing that will  
5 calculate the revenue requirement associated with all actual REP capital additions from  
6 April 1, 2013 to March 31, 2015 and forecasted period of April 1, 2015 to June 30, 2016.  
7 In addition, as part of the Settlement Agreement, PSNH will continue to collect the \$4  
8 million in current REP funding as well as \$3.010 million in funding that will be  
9 redirected to REP that was associated with the amortization of the 2010 wind storm.

10 PSNH made the filing anticipated by the Settlement Agreement on June 10, 2015 and, on  
11 June 25, 2015 in Order No. 25,793, the Commission approved the necessary revenue  
12 requirement for inclusion in PSNH's July 1, 2015 rates, on a temporary basis, pending  
13 the Commission's review of the Settlement Agreement. In April 2016, the Company will  
14 make a filing to reconcile the prior year REP activities and forecast budgeted activities  
15 through June 30, 2017.

16 **Q. What are the expected distribution rate impacts of the REP program?**

17 A. Per the Company's filing, as approved by the Commission, starting on July 1, 2015 there  
18 was an annual increase of \$5.6 million (0.070 cents per kwh) related to recovery  
19 associated with capital additions from April 1, 2013 through June 30, 2015. In addition,  
20 the Company estimates an annual increase starting on July 1, 2016 of \$5.0 million related  
21 to recovery associated with capital additions from July 1, 2015 through June 30, 2016.

1 The net impact of these two rate changes is an estimated increase in revenue requirement  
2 from July 1, 2015 through July 1, 2017 of \$16.2 million, with increases by year of \$2.8  
3 million in 2015, \$8.1 million in 2016, and \$5.3 million in 2017. These figures appear on  
4 Line 20 of Exhibit EHC-1, Page 1.

5 **Q. How does the Settlement Agreement deal with storm funding?**

6 A. The storm funding provision in the Settlement Agreement benefits customers in that it  
7 allows for expedited recovery of storm costs that the Company has incurred, leading to  
8 lower overall carrying costs paid by customers on the unfunded storm costs. During the  
9 term of the Settlement Agreement, the Company will continue to amortize the December  
10 2008 ice storm and collect the \$12 million in major storm cost recovery funding. With  
11 the exception of the 2008 ice storm, all pre-staging and major storms will accrue carrying  
12 charges at the stipulated rate of return utilizing a 60/40 debt/equity split and an 8 percent  
13 ROE and the current cost of capital.

14 **Q. Please explain the exogenous events clause in the Settlement Agreement.**

15 A. During the term of this Settlement Agreement, PSNH will be allowed to adjust  
16 distribution rates upward or downward resulting from Exogenous Events for any of the  
17 event defined as a State Initiated Cost Change, Federally Initiated Cost Change,  
18 Regulatory Cost Reassignment, or Externally Imposed Accounting Rule Change. PSNH  
19 will adjust distribution rates upward or downward (to the extent that the revenue impact  
20 of such event is not otherwise captured through another rate mechanism that has been  
21 approved by the Commission) if the total distribution revenue impact (positive or

1 negative) of all such events exceeds \$1,000,000 (Exogenous Events Rate Adjustment  
2 Threshold) in any calendar year beginning with 2015.

3 **CLEAN ENERGY PROVISIONS**

4 **Q. Please describe the provisions in the Settlement Agreement for the Clean Energy**  
5 **Fund.**

6 A. As stated in the Settlement Agreement, PSNH agrees to provide \$5 million to capitalize a  
7 Clean Energy Fund upon closing on the RRBs. This amount will not be recovered from  
8 customers. Details regarding the Clean Energy Fund will be established via a  
9 collaborative process overseen by Commission Staff and the Office of Energy and  
10 Planning. General principles governing the uses of the Clean Energy Fund and any  
11 programs supported by the Fund will include but not be limited to: 1) innovation in  
12 achieving clean energy benefits; 2) leveraging of various sources of funds including  
13 attracting private capital to the fund and to programs supported by the fund; 3) expanding  
14 access to clean energy across customer classes in a cost-effective manner; and 4)  
15 avoiding undue administrative costs.

16 **Q. How will charges for energy efficiency and distributed energy investments related to**  
17 **the new Clean Energy Fund be implemented?**

18 A. As stated in the Settlement Agreement, PSNH agrees to work with interested parties to  
19 establish and implement increased energy efficiency savings and distributed energy  
20 investment targets. PSNH shall be allowed recovery of all prudent costs associated with

1 the energy efficiency and distributed energy investments required to meet these targets.  
2 Such recovery will occur via the System Benefits Charge or other non-bypassable charge  
3 or rate approved by the Commission. As these investments have yet to be defined, no  
4 charges related to the Clean Energy Fund have been included in my analysis.

5 **Q. Does this conclude your testimony?**

6 A. Yes, it does.

**Public Service Company of New Hampshire d/b/a Eversource Energy**  
**Customer Savings**  
**Securitization Effective Date January 1, 2017**

Line	Customer Savings (\$ in millions except where noted)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Source	
1	Securitization Principal, Interest, and Issuance Costs	\$ -	\$ -	\$ 48.6	\$ 47.5	\$ 46.5	\$ 45.5	\$ 44.5	\$ 43.5	\$ 42.5	\$ 41.5	\$ 40.4	\$ 39.4	\$ 38.4	\$ 37.4	\$ 36.4	\$ 35.4	\$ 34.4	Page 5, (Line 2 thru Line 16 (less Admin Payment))/1000	
2	Annual Fees	-	-	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	Page 3, Line 20/1000	
3	Tax Stabilization Payment	-	-	3.5	2.4	1.2	-	-	-	-	-	-	-	-	-	-	-	-	Page 3, Line 21/1000, Line 22/1000 & Line 23/1000	
4	Total Customer Payment	\$ -	\$ -	\$ 53.0	\$ 50.8	\$ 48.6	\$ 46.4	\$ 45.4	\$ 44.4	\$ 43.4	\$ 42.4	\$ 41.3	\$ 40.3	\$ 39.3	\$ 38.3	\$ 37.3	\$ 36.3	\$ 35.3	Line 1 + Line 2 + Line 3	
5	Levelized Above/(Below) Market Impact of Existing PPAs	-	-	16.0	16.0	16.0	16.0	16.0	16.0	16.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	Page 3, Line 28/1000 + Line 33/1000	
6	Total Customer Payment Including Existing PPAs	\$ -	\$ -	\$ 69.0	\$ 66.8	\$ 64.6	\$ 62.4	\$ 61.4	\$ 60.4	\$ 59.4	\$ 59.3	\$ 58.3	\$ 57.3	\$ 56.3	\$ 55.3	\$ 54.3	\$ 53.2	\$ 52.2	Line 4 + Line 5	
7	Annual Distribution Sales Estimate (GWh)	-	-	7,907	7,907	7,907	7,907	7,907	7,907	7,907	7,907	7,907	7,907	7,907	7,907	7,907	7,907	7,907	Page 3, Line 34/1000	
8	Change to Average SCRC due to Securitization and Other Transaction Costs (cents/kWh)	-	-	0.67	0.64	0.61	0.59	0.57	0.56	0.55	0.54	0.52	0.51	0.50	0.48	0.47	0.46	0.45	(Line 4 / Line 7) x 100	
9	Change to SCRC due to Existing PPAs (cents/kWh)	-	-	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	(Line 5 / Line 7) x 100	
10	Total Change to SCRC (cents/kWh)	-	-	0.87	0.85	0.82	0.79	0.78	0.76	0.75	0.75	0.74	0.72	0.71	0.70	0.69	0.67	0.66	Line 8 + Line 9	
11	Competitive Default Rate (cents/kWh)	-	-	6.20	6.80	6.50	7.20	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	Staff Report IR 13-020 Page 4	
12	Total Customer Charge (cents/kWh)	-	-	7.07	7.65	7.32	7.99	8.08	8.06	8.05	8.05	8.04	8.02	8.01	8.00	7.99	7.97	7.96	Line 10 + Line 11	
13	PSNH Energy Service Rate (cents/kWh)	-	-	9.40	9.90	9.90	10.80	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	Staff Report IR 13-020 Page 4 (with Scrubber)	
14	Customer Migration	-	-	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%	Page 3, Line 36	
15	Customer Energy Cost Impact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
16	Baseline	\$ -	\$ -	\$ 611.1	\$ 654.8	\$ 642.4	\$ 705.3	\$ 716.9	\$ 716.9	\$ 716.9	\$ 716.9	\$ 716.9	\$ 716.9	\$ 716.9	\$ 716.9	\$ 716.9	\$ 716.9	\$ 716.9	\$ 716.9	((Line 7 x Line 11 x Line 14) + (Line 7 x Line 13 x (1 - Line 14))) / 100
17	Post-Divestiture	-	-	559.2	604.5	578.6	631.7	638.6	637.6	636.6	636.5	635.5	634.5	633.5	632.4	631.4	630.4	629.4	629.4	(Line 7 x Line 12) / 100
18	Net Savings / (Increase)	\$ -	\$ -	\$ 51.9	\$ 50.3	\$ 63.8	\$ 73.6	\$ 78.3	\$ 79.4	\$ 80.4	\$ 80.4	\$ 81.5	\$ 82.5	\$ 83.5	\$ 84.5	\$ 85.5	\$ 86.5	\$ 87.5	\$ 87.5	Line 16 - Line 17
19	Distribution Cost Impacts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20	Distribution Rate Adjustment from REP Continuation	\$ (2.8)	\$ (8.1)	\$ (5.3)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Page 3, Lines 37 and 38
21	Distribution Rate Case Stay-Out Savings	19.3	38.6	19.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Page 3, Line 39
22	Total Distribution Rate Savings / (Increase)	\$ 16.5	\$ 30.5	\$ 14.0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Line 20 + Line 21
23	<b>Total Customer Savings</b>	<b>\$ 16.5</b>	<b>\$ 30.5</b>	<b>\$ 65.9</b>	<b>\$ 50.3</b>	<b>\$ 63.8</b>	<b>\$ 73.6</b>	<b>\$ 78.3</b>	<b>\$ 79.4</b>	<b>\$ 80.4</b>	<b>\$ 80.4</b>	<b>\$ 81.5</b>	<b>\$ 82.5</b>	<b>\$ 83.5</b>	<b>\$ 84.5</b>	<b>\$ 85.5</b>	<b>\$ 86.5</b>	<b>\$ 87.5</b>	<b>\$ 87.5</b>	<b>Line 18 + Line 22</b>
24	Cumulative Customer Savings	\$ 16.5	\$ 47.0	\$ 112.9	\$ 163.2	\$ 227.0	\$ 300.5	\$ 378.9	\$ 458.2	\$ 538.6	\$ 619.0	\$ 700.5	\$ 783.0	\$ 866.5	\$ 951.0	\$ 1,036.5	\$ 1,123.0	\$ 1,210.6	\$ 1,210.6	Line 23 + Line 24 Prior Year

Estimated savings through five years following divestiture

Estimated savings through 15 years following divestiture

**Public Service Company of New Hampshire d/b/a Eversource Energy**  
**Revenue Requirement Allocation and Average Rate**  
**Securitization Effective Date January 1, 2017**

Line	Customer Savings (\$ in millions except where noted)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Source	
1	Securitization Principal, Interest, and Issuance Costs	\$ -	\$ -	\$ 48.6	\$ 47.5	\$ 46.5	\$ 45.5	\$ 44.5	\$ 43.5	\$ 42.5	\$ 41.5	\$ 40.4	\$ 39.4	\$ 38.4	\$ 37.4	\$ 36.4	\$ 35.4	\$ 34.4	Page 1, Line 1	
2	Annual Fees	-	-	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	Page 1, Line 2	
3	Tax Stabilization Payment	-	-	3.5	2.4	1.2	-	-	-	-	-	-	-	-	-	-	-	-	Page 1, Line 3	
4	Total Customer Payment	\$ -	\$ -	\$ 53.0	\$ 50.8	\$ 48.6	\$ 46.4	\$ 45.4	\$ 44.4	\$ 43.4	\$ 42.4	\$ 41.3	\$ 40.3	\$ 39.3	\$ 38.3	\$ 37.3	\$ 36.3	\$ 35.3	Line 1 + Line 2 + Line 3	
5	Levelized Above/(Below) Market Impact of Existing PPAs	-	-	16.0	16.0	16.0	16.0	16.0	16.0	16.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	Page 1, Line 5	
6	Total Customer Payment Including Existing PPAs	\$ -	\$ -	\$ 69.0	\$ 66.8	\$ 64.6	\$ 62.4	\$ 61.4	\$ 60.4	\$ 59.4	\$ 59.3	\$ 58.3	\$ 57.3	\$ 56.3	\$ 55.3	\$ 54.3	\$ 53.2	\$ 52.2	Line 4 + Line 5	
7	<b>SCRC Revenue Requirement Allocation</b>																			
8	Rate R			48.75%	48.75%	48.75%	48.75%	48.75%	48.75%	48.75%	48.75%	48.75%	48.75%	48.75%	48.75%	48.75%	48.75%	48.75%	Per Settlement	
9	Rate G			25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	Per Settlement	
10	Rate GV			20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	Per Settlement	
11	Rate LG			5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	Per Settlement	
12	Rate OL			0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	Per Settlement	
13	<b>Total</b>			<b>100.00%</b>																
14	<b>Retail GWh Sales (2014 Actual Billed Sales)</b>																			
15	Rate R			3,183	3,183	3,183	3,183	3,183	3,183	3,183	3,183	3,183	3,183	3,183	3,183	3,183	3,183	3,183	Company Records	
16	Rate G			1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	Company Records	
17	Rate GV			1,662	1,662	1,662	1,662	1,662	1,662	1,662	1,662	1,662	1,662	1,662	1,662	1,662	1,662	1,662	Company Records	
18	Rate LG			1,309	1,309	1,309	1,309	1,309	1,309	1,309	1,309	1,309	1,309	1,309	1,309	1,309	1,309	1,309	Company Records	
19	Rate OL			39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	Company Records	
20	<b>Total</b>			<b>7,907</b>																
21	<b>Average SCRC Rates due to Securitization (cents/kWh)</b>																			
22	Rate R			0.81	0.78	0.74	0.71	0.70	0.68	0.66	0.65	0.63	0.62	0.60	0.59	0.57	0.56	0.54	(Line 4 * Line 8)/Line 15*100	
23	Rate G			0.77	0.74	0.71	0.68	0.66	0.65	0.63	0.62	0.60	0.59	0.57	0.56	0.54	0.53	0.51	(Line 4 * Line 9)/Line 16*100	
24	Rate GV			0.64	0.61	0.58	0.56	0.55	0.53	0.52	0.51	0.50	0.49	0.47	0.46	0.45	0.44	0.42	(Line 4 * Line 10)/Line 17*100	
25	Rate LG			0.23	0.22	0.21	0.20	0.20	0.19	0.19	0.19	0.18	0.18	0.17	0.17	0.16	0.16	0.15	(Line 4 * Line 11)/Line 18*100	
26	Rate OL			0.68	0.66	0.63	0.60	0.59	0.57	0.56	0.55	0.53	0.52	0.51	0.49	0.48	0.47	0.45	(Line 4 * Line 12)/Line 19*100	
27	<b>Total</b>			<b>0.67</b>	<b>0.64</b>	<b>0.61</b>	<b>0.59</b>	<b>0.57</b>	<b>0.56</b>	<b>0.55</b>	<b>0.54</b>	<b>0.52</b>	<b>0.51</b>	<b>0.50</b>	<b>0.48</b>	<b>0.47</b>	<b>0.46</b>	<b>0.45</b>	(Line 4 * Line 13)/Line 20*100	
28	<b>Average SCRC Rates due to Existing PPAs (cents/kWh)</b>																			
29	Rate R			0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	(Line 5 * Line 8)/Line 15*100	
30	Rate G			0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	(Line 5 * Line 9)/Line 16*100	
31	Rate GV			0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	(Line 5 * Line 10)/Line 17*100	
32	Rate LG			0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	(Line 5 * Line 11)/Line 18*100	
33	Rate OL			0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	(Line 5 * Line 12)/Line 19*100	
34	<b>Total</b>			<b>0.20</b>	<b>0.21</b>	(Line 5 * Line 13)/Line 20*100														
35	<b>Average SCRC Rates (cents/kWh)</b>																			
36	Rate R			1.06	1.02	0.99	0.96	0.94	0.93	0.91	0.91	0.89	0.88	0.86	0.85	0.83	0.82	0.80	Line 22 + Line 29	
37	Rate G			1.01	0.97	0.94	0.91	0.90	0.88	0.87	0.87	0.85	0.84	0.82	0.81	0.79	0.78	0.76	Line 23 + Line 30	
38	Rate GV			0.83	0.80	0.78	0.75	0.74	0.73	0.71	0.71	0.70	0.69	0.68	0.67	0.65	0.64	0.63	Line 24 + Line 31	
39	Rate LG			0.30	0.29	0.28	0.27	0.27	0.27	0.26	0.26	0.26	0.25	0.25	0.24	0.24	0.23	0.23	Line 25 + Line 32	
40	Rate OL			0.89	0.86	0.83	0.81	0.79	0.78	0.77	0.77	0.75	0.74	0.73	0.71	0.70	0.69	0.67	Line 26 + Line 33	
41	<b>Total</b>			<b>0.87</b>	<b>0.85</b>	<b>0.82</b>	<b>0.79</b>	<b>0.78</b>	<b>0.76</b>	<b>0.75</b>	<b>0.75</b>	<b>0.74</b>	<b>0.72</b>	<b>0.71</b>	<b>0.70</b>	<b>0.69</b>	<b>0.67</b>	<b>0.66</b>	Line 27 + Line 34	

**Public Service Company of New Hampshire d/b/a Eversource Energy  
Savings Model Assumptions  
Securitization Effective Date January 1, 2017**

Line	Financing Assumptions (\$000 except where noted)	Source
1	Securitization period (years)	15 Eversource Corporate Finance Department
2	Securitization Period (Months)	180 Line 1 x 12
3	Securitization Rate	3.00% Eversource Corporate Finance Department
4	Upfront Issuance Costs	\$ 8,000 Eversource Corporate Finance Department
5	Effective Tax Rate	40.525% 35% Federal Tax Rate & 8.5% NH Tax Rate
6	<i>Assumes fixed principal, interest payments decline annually</i>	
7	Valuation and securitization assumptions (\$000)	Source
7	Net Book Value 1/1/17	636,206 Eversource Estimated Balance Including CWIP
8	Sale Proceeds	225,000 Estimated Sale Proceeds Per NHPUC Staff Valuation Report
9	Deferral Balance 1/1/17	103,000 Eversource Estimated Balance 1/1/17
10	Fuel	73,197 Eversource Estimate: Assume 100% Reimbursed @ Close
11	Materials and Supplies (Including SOx/NOx/RGGI Allowances)	58,444 Eversource Estimate: Assume 100% Reimbursed @ Close
12	Employee Costs	10,903 Estimated Separation and Transition Costs
13	Pension & PBOP Regulatory Asset	16,054 Estimate for 1/1/17
14	Deferred Tax Reserve (FAS 109)	15,440 Estimate for 1/1/17
15	Other Regulatory Assets/Liabilities	(1,229) Eversource Records 12/31/14
16	Asset Retirement Obligation Net Reg Asset/Reg Liability	(5,035) Eversource Records 12/31/14
17	Unamortized Debt Expense/Debt Premium/Losses on Reacquired Debt	4,636 Eversource Records 12/31/14
18	Make Whole Premiums on Debt Redemptions	6,000 Estimate for 1/1/17
19	Other Divestiture-Related Costs	6,000 Placeholder Estimates for Legal, Consultants, Other Professional Services, and Contingency
20	Annual costs to recover thru transition charge (\$000)	Source
20	Annual Costs for Financing (Year 1 thru 15)	\$ 890 NU Corporate Finance department
21	Tax Stabilization Payments Year 1	3,533 Estimate Based on La Capra valuation and 2014 Actual Property Tax Payments
22	Tax Stabilization Payments Year 2	2,355 2/3 of Line 21
23	Tax Stabilization Payments Year 3	1,178 1/3 of Line 21
24	Existing PPA assumptions and calculations (\$000 except where noted)	Source
24	Estimated NPV of Burgess PPA @ 12% Discount Rate, 19 Years (\$000)	\$ (125,000) 13-020 Staff Report
25	Final Year of Burgess PPA	2033 13-020 Staff Report
26	Years of Burgess PPA Remaining, from 2015	19 13-020 Staff Report
27	Discount Rate for PPAs	12% 13-020 Staff Report
28	Levelized annual Above/(Below) Market Impact of Burgess PPA (\$000)	\$ 16,970 Payment Calculation using Lines 24-27
29	Estimated NPV of Lempster PPA @ 12% Discount Rate, 9 Years (\$000)	5,000 13-020 Staff Report
30	Final Year of Lempster PPA	2023 13-020 Staff Report
31	Years of Lempster PPA Remaining, from 2015	9 13-020 Staff Report
32	Discount Rate for PPAs	12% 13-020 Staff Report
33	Levelized annual Above/(Below) Market Impact of Lempster PPA (\$000)	\$ (938) Payment Calculation using Lines 29-32
34	Other Company assumptions (\$000 except where noted)	Source
34	Forecasted Distribution Sales (MWh)	7,906,557 2014 Billed Retail Sales
35	Forecasted Energy Service Sales (MWh)	3,777,599 2014 Billed Energy Service Sales
36	Energy Service Migration	52.2% 1 - (line 35 / line 34)
37	Estimated REP Distribution Rate Adjustment for July 1, 2015	5,587 Per June 2015 filing in Docket No. DE 09-035
38	Estimated REP Distribution Rate Adjustment for July 1, 2016	5,000 Company estimate
39	Estimated Annual Savings from PSNH Rate Case Stay-out	38,600 Average of the approved rate increases in last two PSNH rate cases (DE 09-035 & DE 06-028)

**Public Service Company of New Hampshire d/b/a Eversource Energy**  
**Securitization Amount Calculation**  
**Securitization Effective Date January 1, 2017**

Line	Costs to securitize (\$000s)	Cost amounts	Adjustment	Total	Source	
1	Net Book Value	\$ 636,206	\$ -	\$ 636,206	Page 3, Line 7	
2	Sale Proceeds Per La Capra Report	(225,000)	-	(225,000)	Page 3, Line 8	
3	Stranded cost per report	<u>\$ 411,206</u>	<u>\$ -</u>	<u>\$ 411,206</u>	Line 1 + Line 2	
4	Deferral	103,000	(25,000)	78,000	Page 3, Line 9 less foregone deferred equity return	
5	Fuel	73,197	(73,197)	-	Page 3, Line 10 (Assumes buyer pays 100% fuel at close)	
6	Materials & Supplies	58,444	(58,444)	-	Page 3, Line 11 (Assumes buyer pays 100% of M&S at close)	
7	Employee Costs	26,957	-	26,957	Page 3, Line 12 + Line 13	
8	Deferred Tax Reserve (FAS 109 Reg Asset)	15,440	-	15,440	Page 3, Line 14	
9	Other Regulatory Assets and Liabilities	4,373	-	4,373	Page 3, Line 15 thru Line 18	
10	Other Divestiture-Related Costs	6,000	-	6,000	Page 3, Line 19	
11	Total Stranded Costs	<u>\$ 698,618</u>	<u>\$ (156,641)</u>	<u>\$ 541,977</u>	Sum of Line 3 thru Line 10	
12	Rate Reduction Bonds Issuance Costs			8,000	Page 3, Line 4	
13	Net Present Value (Benefit) of Tax Shield			(42,780)	Line 17	
14	<b>Securitization Amount</b>			<u><u>\$ 507,196</u></u>	<b>Line 11 + Line 12 + Line 13</b>	
Supporting Securitization Amount Calculations - Present Value of Tax Shield (\$000s)					Total	Source
15	Accumulated Deferred Income Tax			\$ 216,572	Eversource Estimated ADIT 1/1/17	
16	Net Present Value (Benefit) of ADIT			173,792	Net Present Value (Benefit) of Tax Shield	
17	<b>Net PV of tax shield / (benefits)</b>			<u><u>\$ (42,780)</u></u>	<b>Line 16 - Line 15</b>	

**Public Service Company of New Hampshire d/b/a Eversource Energy**  
**15-Year Securitization Summary**  
**Securitization Effective Date January 1, 2017**

Securitization Payment Summary (\$000s)							
Line	Year	Principal Payment	Interest Payment	Admin Payment	Total Payment	Securitization Balance	Source
1						\$ 507,196	Page 6, Line 1
2	2017	\$ 33,813	\$ 14,751	\$ 890	\$ 49,454	473,383	Page 6, Line 2 thru Line 13
3	2018	33,813	13,737	890	48,440	439,570	Page 6, Line 14 thru Line 25
4	2019	33,813	12,722	890	47,425	405,757	Page 6, Line 26 thru Line 37
5	2020	33,813	11,708	890	46,411	371,944	Page 6, Line 38 thru Line 49
6	2021	33,813	10,693	890	45,396	338,131	Page 6, Line 50 thru Line 61
7	2022	33,813	9,679	890	44,382	304,318	Page 6, Line 62 thru Line 73
8	2023	33,813	8,665	890	43,368	270,505	Page 6, Line 74 thru Line 85
9	2024	33,813	7,650	890	42,353	236,692	Page 6, Line 86 thru Line 97
10	2025	33,813	6,636	890	41,339	202,879	Page 6, Line 98 thru Line 109
11	2026	33,813	5,621	890	40,325	169,065	Page 6, Line 110 thru Line 121
12	2027	33,813	4,607	890	39,310	135,252	Page 6, Line 122 thru Line 133
13	2028	33,813	3,593	890	38,296	101,439	Page 6, Line 134 thru Line 145
14	2029	33,813	2,578	890	37,281	67,626	Page 6, Line 146 thru Line 157
15	2030	33,813	1,564	890	36,267	33,813	Page 6, Line 158 thru Line 169
16	2031	33,813	549	890	35,253	-	Page 6, Line 170 thru Line 181
17	<b>Total</b>	<b>\$ 507,196</b>	<b>\$ 114,753</b>	<b>\$ 13,350</b>	<b>\$ 635,300</b>		

**Public Service Company of New Hampshire d/b/a Eversource Energy  
15-Year Securitization Calculation  
Securitization Effective Date January 1, 2017**

Monthly Securitization Payment Calculation (\$000s)									
Line	Year	Month	Principal Payment <sup>(1)</sup>	Interest Payment <sup>(2)</sup>	Admin Payment <sup>(3)</sup>	Total Payment <sup>(4)</sup>	Securitization Balance <sup>(5)</sup>	Source	
1				<b>3.00%</b>			<b>\$ 507,196</b>	Page 3, Line 3 & Page 4, Line 14	
2	2017	Jan	\$ 2,818	\$ 1,268	\$ 74	\$ 4,160	504,379		
3	2017	Feb	2,818	1,261	74	4,153	501,561		
4	2017	Mar	2,818	1,254	74	4,146	498,743		
5	2017	Apr	2,818	1,247	74	4,139	495,925		
6	2017	May	2,818	1,240	74	4,132	493,108		
7	2017	Jun	2,818	1,233	74	4,125	490,290		
8	2017	Jul	2,818	1,226	74	4,118	487,472		
9	2017	Aug	2,818	1,219	74	4,111	484,654		
10	2017	Sep	2,818	1,212	74	4,104	481,837		
11	2017	Oct	2,818	1,205	74	4,097	479,019		
12	2017	Nov	2,818	1,198	74	4,089	476,201		
13	2017	Dec	2,818	1,191	74	4,082	473,383		
14	2018	Jan	2,818	1,183	74	4,075	470,566		
15	2018	Feb	2,818	1,176	74	4,068	467,748		
16	2018	Mar	2,818	1,169	74	4,061	464,930		
17	2018	Apr	2,818	1,162	74	4,054	462,112		
18	2018	May	2,818	1,155	74	4,047	459,295		
19	2018	Jun	2,818	1,148	74	4,040	456,477		
20	2018	Jul	2,818	1,141	74	4,033	453,659		
21	2018	Aug	2,818	1,134	74	4,026	450,841		
22	2018	Sep	2,818	1,127	74	4,019	448,024		
23	2018	Oct	2,818	1,120	74	4,012	445,206		
24	2018	Nov	2,818	1,113	74	4,005	442,388		
25	2018	Dec	2,818	1,106	74	3,998	439,570		
26	2019	Jan	2,818	1,099	74	3,991	436,752		
27	2019	Feb	2,818	1,092	74	3,984	433,935		
28	2019	Mar	2,818	1,085	74	3,977	431,117		
29	2019	Apr	2,818	1,078	74	3,970	428,299		
30	2019	May	2,818	1,071	74	3,963	425,481		
31	2019	Jun	2,818	1,064	74	3,956	422,664		
32	2019	Jul	2,818	1,057	74	3,949	419,846		
33	2019	Aug	2,818	1,050	74	3,942	417,028		

**Public Service Company of New Hampshire d/b/a Eversource Energy**  
**15-Year Securitization Calculation**  
**Securitization Effective Date January 1, 2017**

Line	Year	Month	Monthly Securitization Payment Calculation (\$000s)					Source
			Principal Payment <sup>(1)</sup>	Interest Payment <sup>(2)</sup>	Admin Payment <sup>(3)</sup>	Total Payment <sup>(4)</sup>	Securitization Balance <sup>(5)</sup>	
34	2019	Sep	2,818	1,043	74	3,934	414,210	
35	2019	Oct	2,818	1,036	74	3,927	411,393	
36	2019	Nov	2,818	1,028	74	3,920	408,575	
37	2019	Dec	2,818	1,021	74	3,913	405,757	
38	2020	Jan	2,818	1,014	74	3,906	402,939	
39	2020	Feb	2,818	1,007	74	3,899	400,122	
40	2020	Mar	2,818	1,000	74	3,892	397,304	
41	2020	Apr	2,818	993	74	3,885	394,486	
42	2020	May	2,818	986	74	3,878	391,668	
43	2020	Jun	2,818	979	74	3,871	388,851	
44	2020	Jul	2,818	972	74	3,864	386,033	
45	2020	Aug	2,818	965	74	3,857	383,215	
46	2020	Sep	2,818	958	74	3,850	380,397	
47	2020	Oct	2,818	951	74	3,843	377,580	
48	2020	Nov	2,818	944	74	3,836	374,762	
49	2020	Dec	2,818	937	74	3,829	371,944	
50	2021	Jan	2,818	930	74	3,822	369,126	
51	2021	Feb	2,818	923	74	3,815	366,309	
52	2021	Mar	2,818	916	74	3,808	363,491	
53	2021	Apr	2,818	909	74	3,801	360,673	
54	2021	May	2,818	902	74	3,794	357,855	
55	2021	Jun	2,818	895	74	3,787	355,037	
56	2021	Jul	2,818	888	74	3,780	352,220	
57	2021	Aug	2,818	881	74	3,772	349,402	
58	2021	Sep	2,818	874	74	3,765	346,584	
59	2021	Oct	2,818	866	74	3,758	343,766	
60	2021	Nov	2,818	859	74	3,751	340,949	
61	2021	Dec	2,818	852	74	3,744	338,131	
62	2022	Jan	2,818	845	74	3,737	335,313	
63	2022	Feb	2,818	838	74	3,730	332,495	
64	2022	Mar	2,818	831	74	3,723	329,678	
65	2022	Apr	2,818	824	74	3,716	326,860	
66	2022	May	2,818	817	74	3,709	324,042	

**Public Service Company of New Hampshire d/b/a Eversource Energy**  
**15-Year Securitization Calculation**  
**Securitization Effective Date January 1, 2017**

Monthly Securitization Payment Calculation (\$000s)								
Line	Year	Month	Principal Payment <sup>(1)</sup>	Interest Payment <sup>(2)</sup>	Admin Payment <sup>(3)</sup>	Total Payment <sup>(4)</sup>	Securitization Balance <sup>(5)</sup>	Source
67	2022	Jun	2,818	810	74	3,702	321,224	
68	2022	Jul	2,818	803	74	3,695	318,407	
69	2022	Aug	2,818	796	74	3,688	315,589	
70	2022	Sep	2,818	789	74	3,681	312,771	
71	2022	Oct	2,818	782	74	3,674	309,953	
72	2022	Nov	2,818	775	74	3,667	307,136	
73	2022	Dec	2,818	768	74	3,660	304,318	
74	2023	Jan	2,818	761	74	3,653	301,500	
75	2023	Feb	2,818	754	74	3,646	298,682	
76	2023	Mar	2,818	747	74	3,639	295,865	
77	2023	Apr	2,818	740	74	3,632	293,047	
78	2023	May	2,818	733	74	3,625	290,229	
79	2023	Jun	2,818	726	74	3,617	287,411	
80	2023	Jul	2,818	719	74	3,610	284,594	
81	2023	Aug	2,818	711	74	3,603	281,776	
82	2023	Sep	2,818	704	74	3,596	278,958	
83	2023	Oct	2,818	697	74	3,589	276,140	
84	2023	Nov	2,818	690	74	3,582	273,323	
85	2023	Dec	2,818	683	74	3,575	270,505	
86	2024	Jan	2,818	676	74	3,568	267,687	
87	2024	Feb	2,818	669	74	3,561	264,869	
88	2024	Mar	2,818	662	74	3,554	262,051	
89	2024	Apr	2,818	655	74	3,547	259,234	
90	2024	May	2,818	648	74	3,540	256,416	
91	2024	Jun	2,818	641	74	3,533	253,598	
92	2024	Jul	2,818	634	74	3,526	250,780	
93	2024	Aug	2,818	627	74	3,519	247,963	
94	2024	Sep	2,818	620	74	3,512	245,145	
95	2024	Oct	2,818	613	74	3,505	242,327	
96	2024	Nov	2,818	606	74	3,498	239,509	
97	2024	Dec	2,818	599	74	3,491	236,692	
98	2025	Jan	2,818	592	74	3,484	233,874	
99	2025	Feb	2,818	585	74	3,477	231,056	

**Public Service Company of New Hampshire d/b/a Eversource Energy**  
**15-Year Securitization Calculation**  
**Securitization Effective Date January 1, 2017**

Monthly Securitization Payment Calculation (\$000s)								
Line	Year	Month	Principal Payment <sup>(1)</sup>	Interest Payment <sup>(2)</sup>	Admin Payment <sup>(3)</sup>	Total Payment <sup>(4)</sup>	Securitization Balance <sup>(5)</sup>	Source
100	2025	Mar	2,818	578	74	3,470	228,238	
101	2025	Apr	2,818	571	74	3,463	225,421	
102	2025	May	2,818	564	74	3,455	222,603	
103	2025	Jun	2,818	557	74	3,448	219,785	
104	2025	Jul	2,818	549	74	3,441	216,967	
105	2025	Aug	2,818	542	74	3,434	214,150	
106	2025	Sep	2,818	535	74	3,427	211,332	
107	2025	Oct	2,818	528	74	3,420	208,514	
108	2025	Nov	2,818	521	74	3,413	205,696	
109	2025	Dec	2,818	514	74	3,406	202,879	
110	2026	Jan	2,818	507	74	3,399	200,061	
111	2026	Feb	2,818	500	74	3,392	197,243	
112	2026	Mar	2,818	493	74	3,385	194,425	
113	2026	Apr	2,818	486	74	3,378	191,608	
114	2026	May	2,818	479	74	3,371	188,790	
115	2026	Jun	2,818	472	74	3,364	185,972	
116	2026	Jul	2,818	465	74	3,357	183,154	
117	2026	Aug	2,818	458	74	3,350	180,337	
118	2026	Sep	2,818	451	74	3,343	177,519	
119	2026	Oct	2,818	444	74	3,336	174,701	
120	2026	Nov	2,818	437	74	3,329	171,883	
121	2026	Dec	2,818	430	74	3,322	169,065	
122	2027	Jan	2,818	423	74	3,315	166,248	
123	2027	Feb	2,818	416	74	3,308	163,430	
124	2027	Mar	2,818	409	74	3,300	160,612	
125	2027	Apr	2,818	402	74	3,293	157,794	
126	2027	May	2,818	394	74	3,286	154,977	
127	2027	Jun	2,818	387	74	3,279	152,159	
128	2027	Jul	2,818	380	74	3,272	149,341	
129	2027	Aug	2,818	373	74	3,265	146,523	
130	2027	Sep	2,818	366	74	3,258	143,706	
131	2027	Oct	2,818	359	74	3,251	140,888	
132	2027	Nov	2,818	352	74	3,244	138,070	

**Public Service Company of New Hampshire d/b/a Eversource Energy**  
**15-Year Securitization Calculation**  
**Securitization Effective Date January 1, 2017**

Line	Year	Month	Monthly Securitization Payment Calculation (\$000s)					Source
			Principal Payment <sup>(1)</sup>	Interest Payment <sup>(2)</sup>	Admin Payment <sup>(3)</sup>	Total Payment <sup>(4)</sup>	Securitization Balance <sup>(5)</sup>	
133	2027	Dec	2,818	345	74	3,237	135,252	
134	2028	Jan	2,818	338	74	3,230	132,435	
135	2028	Feb	2,818	331	74	3,223	129,617	
136	2028	Mar	2,818	324	74	3,216	126,799	
137	2028	Apr	2,818	317	74	3,209	123,981	
138	2028	May	2,818	310	74	3,202	121,164	
139	2028	Jun	2,818	303	74	3,195	118,346	
140	2028	Jul	2,818	296	74	3,188	115,528	
141	2028	Aug	2,818	289	74	3,181	112,710	
142	2028	Sep	2,818	282	74	3,174	109,893	
143	2028	Oct	2,818	275	74	3,167	107,075	
144	2028	Nov	2,818	268	74	3,160	104,257	
145	2028	Dec	2,818	261	74	3,153	101,439	
146	2029	Jan	2,818	254	74	3,146	98,622	
147	2029	Feb	2,818	247	74	3,138	95,804	
148	2029	Mar	2,818	240	74	3,131	92,986	
149	2029	Apr	2,818	232	74	3,124	90,168	
150	2029	May	2,818	225	74	3,117	87,350	
151	2029	Jun	2,818	218	74	3,110	84,533	
152	2029	Jul	2,818	211	74	3,103	81,715	
153	2029	Aug	2,818	204	74	3,096	78,897	
154	2029	Sep	2,818	197	74	3,089	76,079	
155	2029	Oct	2,818	190	74	3,082	73,262	
156	2029	Nov	2,818	183	74	3,075	70,444	
157	2029	Dec	2,818	176	74	3,068	67,626	
158	2030	Jan	2,818	169	74	3,061	64,808	
159	2030	Feb	2,818	162	74	3,054	61,991	
160	2030	Mar	2,818	155	74	3,047	59,173	
161	2030	Apr	2,818	148	74	3,040	56,355	
162	2030	May	2,818	141	74	3,033	53,537	
163	2030	Jun	2,818	134	74	3,026	50,720	
164	2030	Jul	2,818	127	74	3,019	47,902	
165	2030	Aug	2,818	120	74	3,012	45,084	

**Public Service Company of New Hampshire d/b/a Eversource Energy**  
**15-Year Securitization Calculation**  
**Securitization Effective Date January 1, 2017**

Monthly Securitization Payment Calculation (\$000s)								
Line	Year	Month	Principal Payment <sup>(1)</sup>	Interest Payment <sup>(2)</sup>	Admin Payment <sup>(3)</sup>	Total Payment <sup>(4)</sup>	Securitization Balance <sup>(5)</sup>	Source
166	2030	Sep	2,818	113	74	3,005	42,266	
167	2030	Oct	2,818	106	74	2,998	39,449	
168	2030	Nov	2,818	99	74	2,991	36,631	
169	2030	Dec	2,818	92	74	2,984	33,813	
170	2031	Jan	2,818	85	74	2,976	30,995	
171	2031	Feb	2,818	77	74	2,969	28,178	
172	2031	Mar	2,818	70	74	2,962	25,360	
173	2031	Apr	2,818	63	74	2,955	22,542	
174	2031	May	2,818	56	74	2,948	19,724	
175	2031	Jun	2,818	49	74	2,941	16,907	
176	2031	Jul	2,818	42	74	2,934	14,089	
177	2031	Aug	2,818	35	74	2,927	11,271	
178	2031	Sep	2,818	28	74	2,920	8,453	
179	2031	Oct	2,818	21	74	2,913	5,636	
180	2031	Nov	2,818	14	74	2,906	2,818	
181	2031	Dec	2,818	7	74	2,899	0	
182			<b>\$ 507,196</b>	<b>\$ 114,753</b>	<b>\$ 13,350</b>	<b>\$ 635,300</b>		

(1) Line 1 Securitization Balance/180

(2) Prior Month Securitization Balance \* Line 1 Interest Rate/12

(3) Page 3, Line 20/12

(4) Principal Payment + Interest Payment + Admin Payment

(5) Prior Month Securitization Balance - Current Month Principal Payment

**PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY**

**FORECASTED DECEMBER 31, 2015 SCRUBBER DEFERRAL BALANCE**

<b>Line</b>	<b>Description</b>	<b>(\$ in 000s)</b>
1	2011 Scrubber Under Recovery	\$ 13,210
2	2012 Scrubber Under Recovery	36,917
3	2013 Scrubber Under Recovery	29,822
4	2014 Scrubber Under Recovery	<u>25,078</u>
5	Total Under Recovery through 12/31/14	\$ 105,027
6	January - December 2015 Estimated Scrubber Costs	56,004
7	January - April 2015 Actual Revenues	(15,486)
8	Current cents/kWh Temp Scrubber Rate	0.98
9	May - December 2015 Estimated MWH Sales	<u>2,642,051</u>
10	May - December 2015 Estimated Revenues	<u>(25,892)</u>
11	Total Estimated Under Recovery as of 12/31/15	<u><u>\$ 119,653</u></u>
12	January - December 2016 Estimated MWH Sales*	<u>4,222,300</u>
13	<u>\$119.653 million Rate Impact :</u>	
14	7 Year Recovery: \$119.653M / 7 Years / 4,222,300 mWh	<u>0.40</u> cents / kWh

\*Based on estimated sales per DE 14-235 (June 11, 2015)