

**THE STATE OF NEW HAMPSHIRE**  
**BEFORE THE NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION**  
**DIRECT TESTIMONY OF ERIC H. CHUNG**  
**PETITION OF PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE**  
**d/b/a EVERSOURCE ENERGY**  
**FOR FINDINGS OF FACT AND FOR ISSUANCE OF FINANCE ORDER**

**November 13, 2017**

**Docket No. DE 17-096**

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

2 A. My name is Eric H. Chung. I am employed by Eversource Energy Service Company as  
3 Director, Revenue Requirements (NH) and Regulatory Projects. My business address is  
4 247 Station Drive, Westwood, Massachusetts 02090.

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

6 A. Yes, I have testified before the Commission in many proceedings, including, *inter alia*,  
7 Docket No. DE 11-250 (Investigation of Merrimack Station Scrubber Project and Cost  
8 Recovery); Docket No. DE 13-274 (2014 Stranded Cost Recovery Charge Rate Change);  
9 Docket No. DE 13-275 (2014 Default Energy Service Rate Change); Docket No. DE 13-  
10 108 (Reconciliation of Energy Service and Stranded Costs for Calendar Year 2012);  
11 Docket DE 14-238 (2015 PSNH Restructuring and Rate Stabilization Agreement);  
12 Docket No. DE 15-464 (Lease Agreement Between PSNH and Northern Pass  
13 Transmission); Docket No. DE 16-693 (PSNH PPA with Hydro-Renewable Resources);,  
14 Docket No. DE 17-105 (Sale of Wyman 4 Interest); and Docket No. DE 17-124 (sale of  
15 generating assets).

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

17 A. I have a Bachelor of Arts in physics with honors from Harvard College, as well as a  
18 Master's of Business Administration in finance and economics from the University of  
19 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 2011 to 2013, I  
6 was a Senior Manager in the Power Utilities Advisory practice at Ernst and Young LLP  
7 ("EY"). From 2009 to 2011, I worked for PacifiCorp, a vertically-integrated electric  
8 utility serving approximately 1.7 million customers across six states in the Western  
9 United States, where my primary role was Director of Environmental Policy and  
10 Strategy. I have also served as an Associate Partner in the Utilities practice at Oliver  
11 Wyman, a Senior Engagement Manager in the Power practice at Strategic Decisions  
12 Group, and a Senior Programmer Analyst at Goldman Sachs. I have approximately  
13 twenty years of relevant management consulting and industry experience, with most of  
14 my career dedicated to the power and utilities sectors.

15 Most relevant to this testimony is my role as Eversource's overall lead for the divestiture  
16 of PSNH's generating assets.

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

18 A. I am filing testimony on behalf of Public Service Company of New Hampshire d/b/a  
19 Eversource Energy ("PSNH," "Eversource," or the "Company") to establish a target  
20 principal amount and range estimate of the RRB financing that will be used to securitize  
21 stranded costs that are associated with the divestiture of PSNH's generating assets. I am  
22 requesting that the Commission approve securitization of stranded costs up to the high  
23 end of the range estimate, and that the Commission explicitly approve the various cost  
24 categories I describe later in my testimony, with actual amounts subject to reconciliation  
25 in a future Stranded Cost Recovery Charge proceeding.

26 **Q. How is your present testimony related to the testimony you provided in Docket No.  
27 DE 17-124?**

28 A. In Docket No. DE 17-124, I submitted testimony in support of the Company's request for

1 approval of two Purchase and Sale Agreements (“PSA”) to effectuate the divestiture of  
2 all of PSNH’s remaining generating assets (one for the sale of the Company’s Thermal  
3 generation units the second for the sale of the Company’s Hydro generating units). As I  
4 noted in that previous testimony, the sale of the Company’s generating assets is a prelude  
5 to the securitized financing of remaining stranded costs. It is the combination of these  
6 sales and the issuance of Rate Reduction Bonds that produce benefits to customers.

7 In my Docket No. DE 17-124 testimony, I also presented an estimate of the principal  
8 amount of costs to be securitized based upon a placeholder closing date for the sale of  
9 PSNH’s generating assets of December 31, 2017

10 **Q. Based upon the “placeholder” generation asset closing date of December 31, 2017,**  
11 **what was your estimate of the principal amount of the RRBs that would be issued?**

12 A. In Attachment EHC-1 to my testimony in Docket No. DE 17-124, I estimated the  
13 financial aspects of the sale assuming a placeholder closing date of December 31, 2017.  
14 At that time, I estimated that the Company expects to securitize approximately \$600  
15 million. I noted in that testimony that the Company would provide more accurate  
16 estimates in a supplemental filing in Docket No. DE 17-096, the securitization financing  
17 docket. This testimony is that supplemental filing.

18  
19 **Q. Is that previous estimate still reasonably accurate?**

20 A. Although a number of balances that make up the securitized amount have been updated  
21 due to improved knowledge and the passage of time, the order of magnitude of the  
22 previous estimate remains reasonable. However, for the purposes of obtaining a Finance  
23 Order, the Company needs flexibility in determining the actual principal amount of the  
24 RRBs to be financed. Such flexibility is necessary because the actual closing on the sale  
25 of PSNH’s thermal assets is not yet known, and the price to be paid for those assets is  
26 subject to adjustment based upon the actual transaction closing date and the fuel  
27 inventories on hand as of the date of closing.

1 **Q. Have you calculated a target principal amount and estimated range of the RRBs?**

2 A. Yes. As discussed in more detail below, I have estimated a target principal amount of the  
3 RRBs of \$638.6 million, with an estimated range of \$616.6 million to \$690.0 million.  
4 This target is not an estimate of the precise amount that will ultimately be securitized, as  
5 there are still many unknowns that will influence the final principal amount. However,  
6 this target, along with the estimated range, establishes a bandwidth within which the  
7 Company is confident will include the final principal amount of the RRBs. In addition,  
8 the high end of the range reflects a realistic upper bound to the amount of securitization.

9 **Q. If the actual principal amount of the RRBs cannot be determined at this time, why  
10 should the Commission issue a Finance Order authorizing securitization now?**

11 A. As noted earlier, the securitization of stranded costs via the issuance of RRBs is a key  
12 component of the 2015 PSNH Settlement approved by the Commission intended to  
13 produce savings for customers. Unless and until the RRBs are issued, stranded costs will  
14 remain on PSNH's books and will continue to accrue the authorized return on those costs.

15 Issuance of a Finance Order approving the securitization of the stranded costs associated  
16 with the divestiture of PSNH's generating assets is the first in a multi-step process  
17 required before those bonds can be issued. A detailed, comprehensive Finance Order is  
18 necessary before the proposed financing can be submitted to the ratings agencies (e.g.,  
19 Standard & Poors and Moodys) for their consideration of approving Triple-A ratings for  
20 the financing. Further, the ratings agencies' decisions are part of the U.S. Securities and  
21 Exchange Commission registration process that must be completed before the RRBs are  
22 marketed. Thus, if the issuance of a Finance Order is delayed until the closing on the sale  
23 of PSNH's thermal generating assets, the entire securitization process will also be  
24 delayed.

25 **Q. You only refer to the sale of PSNH's thermal (fossil) generating assets as a key to  
26 securitization. Why is that?**

27 A. The purpose of the securitization financing is to refinance at a lower carrying charge any  
28 stranded costs remaining as a result of the generation asset divestiture process. The sale

1 of PSNH's hydroelectric generating assets is not expected to create any stranded costs.  
2 To the contrary, the purchase price for PSNH's hydro assets is above those assets' book  
3 value – therefore, the hydro sale is not anticipated to create any stranded costs.

4 **Q. How did you establish your target RRB principal amount and its associated range?**

5 A. I considered various scenarios that would impact the amount of stranded costs and  
6 transaction costs that would be part of the securitization principal. In my prior testimony  
7 in Docket No. DE 17-124, I developed a preliminary estimate for the principal amount  
8 prior to any closing adjustments and based upon the sale of the thermal and hydro assets  
9 closing before January 1, 2018. That is perhaps the best-case scenario.

10 However, the PSA for the sale of the thermal generating assets contains myriad “closing  
11 conditions” – items that must be satisfied or waived before the actual closing of that  
12 transaction may occur. Those “Conditions to Closing” are set forth in Article VI of the  
13 PSA, and include such things as the receipt of title commitments, the receipt of necessary  
14 regulatory approvals, the transfer of myriad permits, and (of course) the payment of the  
15 purchase price. Significantly, the satisfaction of the closing conditions requires “final”  
16 decision; i.e., decisions that are no longer subject to appeal, reconsideration, or rehearing.

17 Therefore, to develop my target principal amount, I took into account the 30-day New  
18 Hampshire statutory rehearing period, and used a target closing date of January 31, 2017  
19 for both the thermal and the hydro sale.

20 Finally, to determine the outer band of my recommended range, I used an outside closing  
21 date of February 28, 2017. I also assumed for the High Case a situation where the closing  
22 of hydro sale was more significantly delayed and that the securitization amount did not  
23 include either the net book value or the proceeds from the sale of the hydro facilities.

24 As shown on Attachment EHC-1, the three scenarios also reflect variation in other factors  
25 that can change the overall securitization principal, including:

- 1 • The final cost of the Commission-approved project to remove the retired
- 2 mercury boilers at Schiller Station;
- 3 • Uncertainty in the amount of the non-scrubber deferral as of close;
- 4 • Minor reductions in net plant due to increases in accumulated depreciation
- 5 under delayed closing;
- 6 • Potential changes to the cost of insurance premiums for environmental
- 7 liability insurance;
- 8 • Uncertainty in the final amount of other divestiture costs; and,
- 9 • Changes to the J.P. Morgan fee based on changes to net proceeds under a
- 10 delayed closing scenario.

11 Attachment EHC-1 provides the data upon which my targeted principal RRB value and  
12 estimated range are based.

13 **Q. Please describe the individual line items on Attachment EHC-1, for each of which**  
14 **you are explicitly seeking Commission approval for recovery.**

15 A. A description of each line item on Attachment EHC-1 follows:

16 Line 1: Net book value of generating assets and inventory

17 This item is calculated as the gross plant in service less accumulated depreciation plus  
18 Construction Work in Progress (“CWIP”), forecasted as of January 1, 2018 for the Low  
19 Case, and forecasted through February 1, 2018 for the Mid Case. The High Case reflects  
20 the forecasted net plant through March 1, 2018 and removes the plant associated with the  
21 hydro facilities to account for a delay in the hydro closing. Additionally, for all three  
22 scenarios, the net book value reflects the generating facilities calculation as described  
23 above plus fuel and non-fuel inventory.

24 Line 2: Sale proceeds

25 This item for the Low Case and Mid Case is the total headline price of \$258.3 million  
26 less adjustments calculated by J.P. Morgan to reflect the different closing dates by  
27 scenario. The High Case also includes an adjustment to remove the hydro sales proceeds

1 to account for a scenario where the hydro assets do not close prior to securitization, as  
2 described previously.

3 Line 3: Plant-related stranded costs

4 This item is calculated as the sum of Line 1 and Line 2.

5 Line 4: Scrubber deferral

6 This item reflects the deferred costs associated with the Merrimack Scrubber project,  
7 which was approved as prudent for recovery in Docket No. DE 11-250 and Docket No.  
8 DE 14-238, but has not been recovered by customers. No changes were assumed across  
9 scenarios because, although the scrubber deferral theoretically could be paid down very  
10 slightly given delayed closing dates under Mid Case and High Case, it's also possible that  
11 minor increases in migration could offset such paydowns.

12 Line 5: Non-scrubber deferral

13 This item reflects the estimated over/under-recovery that will exist at the time the  
14 company transitions from providing Default Energy Service via PSNH's owned  
15 generation to a competitively-procured Default Energy Service. If it is determined in  
16 Docket No. DE 17-113 that this cost is to be recovered via another way, the cost will be  
17 excluded from the amount to be securitized. The Low Case reflects a typical value for  
18 under-recovery as of the end of a calendar year, while the Mid Case and High Case  
19 reflect the wide range of uncertainty related to estimating the non-scrubber deferral at this  
20 time.

21 Line 6: Reduction for deferred equity return per settlement agreement

22 This item refers to the reduction as agreed to in Section 2.D of the Settlement Agreement  
23 approved in Docket No. DE 14-238.

24 Line 7: Net deferral

25 This item is calculated as the sum of Lines 5 through 7.

1 Line 8: Regulatory assets and liabilities

2 This item reflects the resolution of a variety of assets and liabilities that will have been  
3 accumulated by closing. Examples include Asset Retirement Obligations, the Merrimack  
4 Station landfill escrow balance, unamortized debt expense, and the net proceeds from the  
5 sale of Eversource's small share in the Wyman 4 generating station, which was approved  
6 by the Commission in Docket No. DE 17-105.

7 Line 9: JPM auction advisor fee

8 This item reflects the estimated fee due to the Commission's auction advisor, J.P.  
9 Morgan, per the terms reflected in their contract that was approved by the Governor and  
10 Executive Council in September 2016. Because the non-expense portion of this fee is  
11 calculated based on a percentage of net sale proceeds, this amount has been adjusted in  
12 the Mid Case and High Case to reflect the reduction in those scenarios due to the delayed  
13 closing adjustment.

14 Line 10: Employee separation costs

15 This item is a placeholder estimate for the cost of employee protections to be securitized  
16 based on the number of employees who are involuntarily terminated as a result of the  
17 sale, pursuant to New Hampshire law, the 2015 Settlement Agreement, and associated  
18 documents. Based on information provided by the buyers in the Purchase and Sale  
19 Agreements as well as in their bid letters, the Company assumed that 20% of the 184  
20 employees affected by the fossil sale would be terminated, along with nine additional  
21 PSNH staff whose primary roles were supporting Generation and are no longer needed in  
22 the Company after the sale. Though actual per-employee severance costs will vary by  
23 individual, the Company assumed an average severance cost of \$125,000 per terminated  
24 employee. This calculation was used for all three securitization scenarios shown in  
25 Attachment EHC-1.

26 Line 11: Environmental liability insurance premiums

27 This item reflects estimates for premiums for liability insurance related to unknown  
28 environmental issues that arise after closing, as presented in my testimony in Docket No.

1 DE 17-124. The Low Case estimate was provided by the Eversource Corporate Insurance  
2 department and reflects the total premium for reasonable term lengths and amounts that  
3 were informed by the terms contained in both PSAs. The Mid Case and High Case reflect  
4 reasonable contingencies in case the cost of insurance changes.

5 Line 12: Stranded administrative and general expenses

6 This item reflects the annual corporate operating expense that was previously allocated  
7 the Generation business, but will need to be absorbed by the rest of the Eversource  
8 organization following the sale. The Company plans to address stranded administrative  
9 and general expenses through a combination of reductions in staff and an equitable  
10 reallocation of expenses across the Company. However, such a transition cannot be  
11 accomplished immediately and takes time to implement. Therefore, the Company is  
12 requesting the Commission approve the inclusion of one year of stranded administrative  
13 and general expenses in the securitization principal so the Company can have a short  
14 period of time to successfully accomplish the transition. The estimate of \$10.5 million  
15 shown in Attachment EHC-1 was developed by Eversource's Financial Planning and  
16 Analysis department and reflects the allocation of corporate administrative and general  
17 expenses, including labor, outside services, insurance, information technology, employee  
18 costs, and various payments and fees that would have been attributable to Generation on  
19 a continuing basis. This estimate was used for all three securitization scenarios shown in  
20 Attachment EHC-1.

21 Line 13: Schiller mercury boiler removal project

22 This item is the cost of the Commission-approved project to remove the two retired  
23 mercury boilers at Schiller Station. Prudent recovery of the costs of this project was  
24 previously approved by the Commission as part of Order No. 25,956 in Docket No. DE  
25 16-817. Because the project is underway and not expected to be completed until mid-  
26 2018, the Company does not have an updated total cost estimate at this time. In addition,  
27 as with any complex environmental project, the resolution of project uncertainties and  
28 unknowns can ultimately impact the final costs. Therefore, for the purposes of  
29 calculating the overall securitization range, a conservative placeholder of \$30 million was

1 used for the Low Case, with the Mid Case and High Case incorporating increases of 10%  
2 and 20% respectively to reflect contingencies related to unforeseen issues that could  
3 evolve over the course of the project.

4 Line 14: Other divestiture costs

5 This item reflects a range of costs that would not have been incurred but for the  
6 divestiture transaction, and therefore are appropriate to be included for recovery as part of  
7 the securitization balance. Such costs include the following expense categories:

- 8 • Auction expenses, which include the regional market analysis and independent  
9 engineering review recommended by J.P. Morgan as part of the Round 1 bidding  
10 materials, plus the costs of hosting the Virtual Data Room for Round 2 due  
11 diligence;
- 12 • Legal expenses, which include fees for Eversource transaction counsel,  
13 Commission transaction counsel, and other legal services necessary to execute the  
14 transaction;
- 15 • Regulatory and environmental expenses, which include Eversource pre-auction  
16 preparation and outside witness testimony, the 2015 Phase 1 environmental site  
17 assessments and related support pursuant to Commission directive, and the pieces  
18 of economic analyses required to litigate the approval of the 2015 Settlement  
19 Agreement in Docket No. DE 14-238;
- 20 • Miscellaneous divestiture-related expenses, none of which would have been  
21 incurred in the absence of the divestiture. These include real estate service costs,  
22 the post-divestiture transaction support activities conducted by Strategy& and  
23 broadly described in my testimony in Docket No. DE 17-124, third-party costs to  
24 support benefits-related divestiture activities, and other various expenses to enable  
25 the completion of the transaction; and,
- 26 • A standard project contingency of 15% to account for additional unanticipated  
27 expenses that may arise as a result of the transaction.

28 Line 15: Transaction-related costs

29 This item is calculated as the sum of Lines 8 through 14.

1 Line 16: Subtotal of estimated costs to be securitized

2 This item is calculated as the sum of Lines 3, 7, and 15.

3 Line 17: Net present value of tax benefits

4 This item is a deduction to the securitization principal. Upon completion of the sale of the  
5 assets, there will be deferred taxes. The deferred income tax will unwind over the  
6 securitization period of 15 years. Consistent with the securitization legislation in Senate  
7 Bill 221 (codified at RSA 369-B:3, IV,(c)), the company is calculating the Net Present  
8 Value (“NPV”) of these tax benefits and payments over the 15-year securitization period  
9 using a discount rate equal to the expected interest rate on the rate reduction bonds. The  
10 amount of the rate reduction bonds that would otherwise be issued will be reduced by the  
11 NPV of the related tax cash flows. This results in customers receiving the upfront benefit  
12 of a reduction in the total amount to securitize.

13 Line 18: Issuance costs

14 This items reflects an estimate of the costs to issue the RRBs by scenario. Estimates  
15 were provided by Goldman Sachs and will be finalized once the final principal amount  
16 for securitization has been developed.

17 Line 19: Recommended target securitization ranges

18 This item is calculated as the sum of Lines 16, 17, and 18.

19 **Q. Will the Commission have an opportunity to review the final principal amount of**  
20 **the RRBs?**

21 A. Yes. Such a review is expected to take place after the RRBs are issued as part of the  
22 Commission’s semi-annual review of the Stranded Cost Recovery Charge. The  
23 Commission is expected to audit the amount that PSNH has securitized to ensure that the  
24 Company acted prudently throughout the securitization process, and that the amount  
25 securitized was proper and consistent with the terms of the 2015 PSNH Settlement and  
26 New Hampshire law.

1 **Q. What action are you requesting of the Commission at this time?**

2 A. The Company requests that the Commission issue a Finance Order approving the  
3 issuance of RRBs and further approving a principal amount of the securitization  
4 financing of \$638.6 million, and up to the high end of the range of \$690.0 million as set  
5 forth in my testimony. In addition, the Company requests that the Commission approve  
6 the cost items described in my testimony and Attachment EHC-1, subject to final  
7 reconciliation once actual amounts are known.

8 **Q. Does this complete your testimony?**

9 A. Yes, it does.