

STATE OF NEW HAMPSHIRE  
BEFORE THE  
NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

DE 11-250  
#14  
Eric H. Chung

REBUTTAL TESTIMONY OF ERIC H. CHUNG

Investigation of Merrimack Station Scrubber Project and Cost Recovery

Docket No. DE 11-250

July 11, 2014

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

2 A. My name is Eric H. Chung. My business address is 1 NSTAR Way, Westwood, MA 02090. My  
3 position is Director of Revenue Requirements for Massachusetts and New Hampshire at  
4 Northeast Utilities.

5 Q. Have you previously testified before the Commission?

6 A. Yes. I have most recently testified before the Commission in dockets DE 13-274 (2014 Stranded  
7 Cost Recovery Charge Rate Change), DE 13-275 (2014 Default Energy Service Rate Change)  
8 and DE 13-108 (Reconciliation of Energy Service and Stranded Costs for Calendar Year 2012).

9 Q. Please describe your educational background.

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

13 Q. Please describe your professional experience.

14 A. I was appointed to my current position at Northeast Utilities in August 2013, and I have over  
15 fifteen years of related management consulting and industry experience, with most of my career

1 dedicated to the power and utilities sectors. From May 2011 to August 2013, I was a Senior  
2 Manager in the Power Utilities Advisory practice at Ernst and Young LLP. From July 2009 to  
3 April 2011, I worked for PacifiCorp, a vertically-integrated electric utility based in Portland, OR  
4 serving approximately 1.7 million customers across six states in the Western U.S. At PacifiCorp,  
5 my primary role was Director of Environmental Policy and Strategy, and I also held leadership  
6 roles in PacifiCorp's Transmission and Corporate Finance departments. I have also served as an  
7 Associate Partner in the Utilities practice at Oliver Wyman, a Senior Engagement Manager in the  
8 Power practice at Strategic Decisions Group, and a Senior Programmer Analyst at Goldman  
9 Sachs.

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

11 A. I am currently responsible for all regulatory activity affecting the financial requirements of  
12 Northeast Utilities' operating companies located in Massachusetts and New Hampshire.

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

14 A. The purpose of my testimony is two-fold. First, it is to adopt and update the previous testimony  
15 in this docket submitted by Robert A. Baumann. My job as Director of Revenue Requirements  
16 for Massachusetts and New Hampshire was formerly held by Mr. Baumann, who has retired. Mr.  
17 Baumann submitted testimony in this proceeding dated June 15, 2012. I have reviewed that  
18 testimony and hereby adopt it as part of my testimony. Second, it is to comment on the  
19 Company's position with respect to certain aspects of the testimony submitted by Steven E.  
20 Mullen, the former Assistant Director of the Electric Division for the New Hampshire Public  
21 Utilities Commission.

1 **Q. Do you have any updates to the testimony previously submitted by Mr. Baumann?**

2 A. Yes. Mr. Baumann's testimony described a permanent rate proposal that included a level of  
3 ongoing scrubber costs and a level of prior unrecovered scrubber costs that were projected as of  
4 December 31, 2012. I will be updating the estimate of both of these amounts in my testimony  
5 today as of December 31, 2014 for rates effective January 1, 2015.

6 **Q. Mr. Baumann stated in his June 15, 2012 testimony that ongoing scrubber costs equated to**  
7 **a rate of approximately 1.1 cents per kWh. Is that rate still correct?**

8 A. No. The 1.1 cents-per-kWh rate that Mr. Baumann presented represented the amount necessary  
9 for recovery of PSNH's cost of installing the scrubber per the mandate of New Hampshire law on  
10 an on-going basis – i.e., O&M and fuel, net of avoided SO<sub>2</sub> costs, as well as non-operating costs  
11 for depreciation, property tax and return on rate base, but not including the unrecovered deferred  
12 costs necessary to true-up the temporary rate level to the permanent rate. Due to the passage of  
13 time, Mr. Baumann's calculations require updating.

14 **Q. What is the current projected rate for ongoing scrubber costs?**

15 A. The current projected rate for ongoing scrubber costs is approximately 1.47 cents per kWh.  
16 Calculation details for this amount are shown in Attachment EHC-1, which updates Attachment  
17 RAB-4 filed with Mr. Baumann's June 15, 2012 testimony. The primary driver behind the  
18 increase in the ongoing scrubber costs rate is lower projected sales due to increased migration  
19 since the development of the exhibits in the June 15, 2012 testimony. Approximately 0.3 cents  
20 per kWh of the increase is because of the migration figure used in the denominator of the rate  
21 calculation. This rate is expected to be reconciled as part of the periodic re-setting of Energy  
22 Service rates to ensure it reflects PSNH's actual, prudent, and reasonable costs of providing  
23 power as required by RSA 369-B:3..

1 **Q. Mr. Baumann stated in his June 15, 2012 testimony that projected prior unrecovered**  
2 **deferred scrubber costs were approximately \$33 million at December 31, 2012. How has**  
3 **this amount changed?**

4 A. The amount of prior unrecovered deferred scrubber costs has grown substantially since December  
5 31, 2012. The Company currently projects deferred scrubber costs to be approximately \$104.7  
6 million at December 31, 2014. Calculation details for this amount are shown in Attachment  
7 EHC-2, which updates Attachment RAB-5 filed with Mr. Baumann's June 15, 2012 testimony.  
8 The growth in deferred scrubber costs was expected, as it is the result of the current temporary  
9 rate being set lower than the rate needed to fully recover ongoing scrubber costs.

10 **Q. With respect to rate impacts of the project, Mr. Mullen presented certain figures and**  
11 **recommendations related to permanent recovery of Scrubber costs. Does the Company**  
12 **have any comments on Mr. Mullen's proposals?**

13 A. Yes. In general, the Company finds Mr. Mullen's proposal to be a thoughtful and balanced  
14 approach to recovering both ongoing and deferred scrubber costs. As noted earlier in my  
15 testimony, the Company calculates the current rate necessary to recover ongoing scrubber costs to  
16 be approximately 1.47 cents per kWh as compared with Mr. Mullen's proposed 1.72 cents per  
17 kWh. There are two main drivers that account for the difference between these rates. First, Mr.  
18 Mullen's rate relied on actual and projected 2013 costs as filed by the Company. The currently  
19 calculated rate by the Company relies on actual and projected 2014 costs. The actual and  
20 projected 2014 costs were lower primarily due to lower projected return on rate base. Second,  
21 Mr. Mullen's rate was calculated by dividing costs by estimated 2014 ES sales from docket DE  
22 13-275. Since those estimated 2014 ES sales were filed, migration has mitigated somewhat and,

1 as a result, the currently calculated rate by the Company is reduced by dividing costs by a larger  
2 amount of actual and projected sales.

3 **Q. Does the Company have any comments about the recovery of past unrecovered costs?**

4 A. Yes. The Company agrees that recovery of such costs over a seven-year period appears just and  
5 reasonable as long as the Company is allowed to continue to recover its carrying costs for any  
6 unrecovered balance over this period. However, the Company notes that total unrecovered  
7 Scrubber costs will be larger than the \$78,734,000 cited in Mr. Mullen's testimony, as the  
8 unrecovered amount will include costs from the end of 2013 up until the date on which permanent  
9 rates are established. As mentioned earlier in my testimony, deferred scrubber costs are projected  
10 to be approximately \$104.7 million at December 31, 2014. Recovery of this amount of deferred  
11 scrubber costs over a seven-year period using the Company's updated ES sales estimate results in  
12 a rate of approximately 0.38 cents per kWh, as opposed to the rate calculated by Mr. Mullen of  
13 0.31 cents per kWh.

14 **Q. Please summarize your proposed changes in the scrubber rate in comparison to the current**  
15 **scrubber rate and those changes proposed by Mr. Mullen.**

16 A. Currently, scrubber rates are set to a temporary level of 0.98 cents per kWh. As discussed above,  
17 Mr. Mullen proposes an ongoing annual rate of 1.72 cents per kWh plus an incremental 0.31  
18 cents per kWh reflecting a seven-year recovery of the deferred scrubber costs, for a total scrubber  
19 rate of 2.03 cents per kWh (an increase of 1.05 cents per kWh over the current temporary rate).  
20 PSNH proposes an ongoing annual rate of 1.47 cents per kWh plus an incremental 0.38 cents per  
21 kWh that also reflects a seven-year recovery of the deferred scrubber costs, for a total scrubber  
22 rate of 1.85 cents per kWh (an increase of 0.87 cents per kWh over the current temporary rate).  
23 These amounts are captured in the table below:

<i>(all amounts in cents/kWh)</i>	Mullen 12/23/2013 testimony proposal	PSNH 7/11/2014 rebuttal testimony proposal
Annual ongoing costs	1.72	1.47
Deferred scrubber costs (seven-year recovery)	0.31	0.38
<b>Total proposed scrubber rate</b>	<b>2.03</b>	<b>1.85</b>
Current temporary scrubber rate	0.98	0.98
<b>Rate increment</b>	<b>1.05</b>	<b>0.87</b>

1 **Q. When do we expect the estimated scrubber rate to be finalized?**

2 A. The Company plans to calculate a permanent rate for ongoing scrubber costs at the close of the  
3 scrubber proceeding, with this rate to be reconciled against the revenues collected during the  
4 period in which the temporary rate was in effect.

5 **Q. In its December 23, 2013 testimony, the Office of Consumer Advocates (OCA) proposed a**  
6 **disallowance of the scrubber costs based on a partial “used-and-useful” test. Does the**  
7 **Company have a perspective on this proposal?**

8 A. Yes. The Company feels that this proposal is without merit, and the Commission has issued an  
9 order in a separate proceeding agreeing with the Company. The OCA’s “used and useful”  
10 proposal in its December 23, 2013 testimony in this proceeding refers to its companion proposal  
11 in Docket No. DE 13-108, “2012 Reconciliation of Energy Service and Stranded Costs.” PSNH  
12 argued against any such hindsight “used and useful” review of a prudent investment in that  
13 proceeding, including the type of review suggested by the OCA that would affect partial  
14 disallowances of rate base assets on the basis of benchmarking capacity factor. In its final order  
15 in that docket, the Commission explicitly stated that “we are not persuaded that it is appropriate  
16 or reasonable to adopt the concept of used and useful advanced by the OCA.” See Order 25,647

1 at page 20. Similarly, the same proposal (or any other partial “used and useful” disallowance  
2 proposal) is not “appropriate or reasonable” to adopt in this proceeding.

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

4 **A. Yes, it does.**