**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**

# REBUTTAL TESTIMONY OF ERIC H. CHUNG

**November 19, 2015**

**Q. Please state your name, position, and responsibilities.**

A. My name is Eric H. Chung. I am Director, Revenue Requirements and Regulatory Projects at Eversource Energy. I am currently responsible for all regulatory activity affecting the financial requirements of Eversource's operations in New Hampshire, plus special enterprise-wide regulatory initiatives across Eversource's operating businesses in the states of Connecticut, Massachusetts, and New Hampshire.

**Q. Have you previously filed direct testimony in this proceeding?**

A. Yes.

**Q. What is the purpose of this rebuttal testimony?**

A. The purpose of this rebuttal testimony is to address several recommendations presented by non-advocate Staff ("Staff") and correct a number of flawed findings of Messrs. Michael D. Cannata, Jr., Leszek Stachow, Jay E. Dudley and Mark Berkman contained in their pre-filed direct testimony dated September 18, 2015. Though Staff's attention to the Settlement and my direct testimony is appreciated, Staff's proposed adjustments and resulting recommendations are either inappropriate or based on incomplete thinking, and should be given little, if any, weight by the Commission when evaluating the 2015 Public Service Company of New Hampshire Restructuring and Rate Stabilization Agreement ("the Settlement Agreement").

**Q. Please summarize your concerns with the recommendations made by Staff.**

A. The key recommendations presented by Staff are included in the testimony of Mr. Stachow and are that: (1) divestiture of PSNH generation should be delayed by five years; (2) material modifications should be made to the traditional auction process laid out in the Settlement Agreement; and (3) the rate design allocating stranded costs proposed in the Settlement Agreement should be revised[1].

Staff recommends that divestiture be delayed by five years based largely on the findings of Mr. Cannata and Mr. Dudley. Mr. Cannata concludes that customers would incur additional costs of $677.6 million over five years if the assets were to be sold in the near-term instead of the $378.9 million in savings that was reflected in preliminary estimates submitted as part of my pre-filed testimony. Mr. Dudley testifies that savings can be achieved in the near-term by refinancing the costs of the scrubber without use of securitization. As I will demonstrate later in my testimony, Mr. Cannata's and Mr. Dudley's findings are the product of several analytical errors, unsupported assumptions, and faulty premises, and their testimonies should be disregarded in their entirety.

Mr. Cannata's errors led him to conclude that the Default Energy Service ("ES") rate would be substantially below competitive market prices in the future if divestiture did not occur, even when the full costs of the Merrimack Station scrubber, including the unrecovered deferrals, are included in the ES rate[2]. This contrasts sharply with the past several years during which the ES rate has largely remained above competitive market prices despite only partial inclusion of scrubber costs.

[1] Testimony of Leszek Stachow, page 21
[2] Testimony of Michael D. Cannata, Jr. Exhibit MDC-3B

Mr. Cannata's most critical oversight was his complete disregard for the substantial fixed costs that must be recovered through the ES rate as long as PSNH owns the generation assets. As I will show later in my testimony, these fixed costs have historically exceeded the value associated with periodic energy market savings and capacity payments highlighted in Mr. Cannata's testimony. I do agree with Mr. Cannata that there may be periodic upsides to the flexibility of the "hybrid"[3] regulatory model in which PSNH customers may benefit from the cost of PSNH's generation when it is advantageous versus the cost of competitive supply. However, by ignoring fixed costs in his evaluation, Mr. Cannata, and by extension, Mr. Stachow, failed to recognize the significant disadvantage of the current ES cost structure relative to the competitive market.

Staff also recommends that divestiture be delayed by five years based on Mr. Dudley's findings that a traditional bond financing is a viable near-term alternative to securitization of stranded costs. As I will explain in my testimony, Mr. Dudley's proposal for an alternative approach to financing stranded costs is not viable. Please also refer to the rebuttal testimony of Philip Lembo and Emilie O'Neil from Eversource Energy with respect to the financing of stranded costs.

Additionally, it does not appear that Staff made reasonable assumptions regarding competitive markets or adequately considered all the risks associated with a five-year delay of divestiture. As indicated in the rebuttal testimony of Dr. Lisa Shapiro, an efficient competitive marketplace will determine the value of an asset, and one cannot "time" the

[3] Please refer to Mr. Cannata's response to Eversource 1-42(c) (provided as Attachment EHC-R-1)

market. But if, as Staff seems to indicate, market timing could be used to beat the marketplace itself, their assessment of market conditions is incorrect. It's also not clear that Staff fully appreciates the potential impact that an adverse change in key market drivers over the proposed delay period could have.

In addition, Staff proposes to substantially modify the traditional auction process laid out in the Settlement Agreement "in the interest of maximizing total transaction value, while achieving the important secondary goals of fairness, transparency, simplicity, and efficiency"[4]. Staff's goals are shared by the Settling Parties, but the proposed auction modifications are not likely to advance the stated objectives. Staff's proposal is an untested approach to the sale of utility generation facilities and, as explained in the rebuttal testimony of John Reed of Concentric Energy Advisors, will increase the likelihood of a failed auction.

Finally, Staff proposes alternative stranded cost allocation methodologies versus what was agreed to by the many settling parties as part of the Senate Bill 221 process. Staff's tinkering with this stranded cost rate design runs afoul of the statutory direction that promotes "the settlement of outstanding issues involving stranded costs" found in 2014 N.H. Laws, Ch. 310, "AN ACT relative to the divestiture of PSNH assets and relative to the siting of wind turbines," at Section 310:1, "Purpose." I make no direct commentary on Staff's proposals in this testimony, but I support the perspectives of the other settling parties' rebuttal testimony on this matter.

[4] Testimony of Leszek Stachow, page 21, line 15-17

## REBUTTAL REGARDING MR. CANNATA'S PREFILED TESTIMONY

**Q. Do you have any comments regarding Mr. Cannata's testimony?**

A. Yes. Mr. Cannata presented several incorrect or incomplete findings regarding the savings analysis I presented in my pre-filed direct testimony dated July 18, 2015. Mr. Cannata incorrectly concluded that:

1. The savings analysis overlooked customer savings associated from high market prices that customers would be obligated to pay if the generation assets were to be sold.
2. The savings analysis missed costs associated with the requirement to make load obligation payments.
3. An adjustment is required to the savings analysis due to using a "Low Gas" price scenario.
4. An adjustment is required to the savings analysis due to the use of a seven-year amortization period for the deferred costs of the scrubber.
5. An adjustment is required to the savings analysis related to the customer benefits of the rate case stay-out based on Mr. Dudley's claim that the placeholder estimate is not "known and measurable."

All of these items reflect errors by Mr. Cannata and other Staff witnesses, to the extent Mr. Cannata relied on their testimony. My counterarguments to Mr. Cannata's proposed adjustments are summarized on the following table:

| Proposed adjustment from Cannata testimony | Paraphrase of argument from Cannata testimony | Counterargument(s) |
|---|---|---|
| 1. Winter market price savings ($583m) | The savings analysis overlooked customer savings associated from high winter market prices that customers would be obligated to pay if the generation assets were to be sold. | • Mr. Cannata did not properly account for the fixed costs of owning and operating PSNH's generating fleet in drawing his conclusion<br>• La Capra confirmed that their forecasts do capture the price spikes that Mr. Cannata alleges were missing |
| 2. Capacity load obligations ($206m) | The savings analysis missed costs associated with the requirement to make load obligation payments. | • Mr. Cannata makes the misleading claim that these cost components were excluded from the analysis, simply because he disagrees with the forecast<br>• By admission, Mr. Cannata neglected to reflect the value of higher capacity payments in the sale proceeds; doing so would have negated the need for his proposed adjustment |
| 3. Gas price scenario ($70m) | An adjustment is required to the savings analysis due to using a "Low Gas" price scenario. | • The "Low Gas" scenario is validated as a reasonable selection by the updated La Capra analysis<br>• Meanwhile, the ES rates used in the settling parties' analysis is consistent with actual rates<br>• Mr. Cannata's insistence on forcing a fixed linkage between ES rates and gas prices is further undermined by the historical lack of correlation between ES rates and gas prices |
| 4. Scrubber amortization ($120m) | An adjustment is required to the savings analysis due to the use of a seven-year amortization period for the deferred costs of the scrubber. | • Mr. Cannata's misunderstanding of the proposed scrubber rate mechanics, including estimated amounts and timing, leads to errors in his calculations<br>• No adjustment before 2021 (the limit of Mr. Cannata's analysis) is required, because the amortization ends after 2021 |
| 5. Rate case stay-out ($77m) | An adjustment is required to the savings analysis related to the customer benefits of the rate case stay-out based on Mr. Dudley's claim that the placeholder estimate for the customer benefits of the rate case stay-out is not "known and measurable." | • "Known and measurable " is not an appropriate standard to apply to the preliminary savings estimate that was submitted by the settling parties<br>• Use of prior approved rate case increase serves as a reasonable proxy for the type of increases that might be avoided during a stay-out period |

I will address in further detail the first four items in this section of my testimony. Because Mr. Cannata relies on Mr. Dudley's testimony for the fifth item, I will address this item in the section of my testimony relating to the testimony of Mr. Dudley.

**Q. Do you have other general concerns with Mr. Cannata's findings?**

A. In addition to these specific errors, Mr. Cannata's findings are generally flawed because he didn't consider or include in his analyses the fixed costs of O&M, depreciation, taxes, and return associated with PSNH owning generation. In his response to Eversource Data Request 1-46 (provided as Attachment EHC-R-2), Mr. Cannata explained that he did not consider or include these costs because he was not requested to do so, because long-term forecasts of fixed costs were not provided by PSNH, and because he concluded that the fixed cost estimates for 2015 and 2016 were not of value. Contrary to this response, Mr. Cannata and Staff had access to information that would have enabled them to reasonably evaluate the impact of fixed costs on PSNH generation and their failure to do so was a critical oversight.

As shown in Exhibit EHC-R-3, the fixed costs of PSNH generation are expected to average approximately $200 million per year from 2013-2016 and in total exceed the value of periodic energy savings and capacity payments by approximately $304 million over this period. These estimates are based entirely on figures that were provided in Data Requests, presented to the Commission in other proceedings, or otherwise made publicly available. Hence, there is no valid reason for Mr. Cannata to suggest that such information was unavailable to him. Exhibit EHC-R-3 illustrates how the current cost structure has placed

PSNH generation at a substantial disadvantage relative to the competitive market despite the periodic market savings and capacity payments highlighted by Mr. Cannata. The failure to recognize the impact of fixed costs likely contributed to some of the analytical errors he made and substantially biased his conclusions.

*1. Winter market price savings ($583m)*

**Q. Did your savings analysis overlook the market cost of energy that customers would be obligated to pay if the generation assets were to be sold?**

A. No, it did not. Mr. Cannata correctly observes that there are periods during which PSNH's generation can be operated at costs that are below the market price of energy. However, he is incorrect to claim that the savings analysis ignored customer's obligation to pay higher market prices during those periods if the generation assets were to be sold.[5]

My savings analysis assumes that customers would be supplied by the competitive market through Default Service following divestiture and relied on the forecast of competitive retail Default Service prices produced by Commission Staff to estimate customer costs under such a scenario. In its April 1, 2014 report filed in Docket No. IR 13-020, Commission Staff explains that their Default Service price forecasts were based upon locational marginal energy price ("LMP") forecasts produced by La Capra Associates, Inc. ("La Capra"). In his response to Eversource Technical Session data request 2-25 (provided as Attachment EHC-R-4), Mr. Cannata asserts that the use of the La Capra LMP forecast led Staff to substantially

[5] Testimony of Michael D. Cannata, Page 11, Line 10-12

underestimate competitive Default Service rates because the forecast relied upon dispatch analysis using average monthly gas prices. Mr. Cannata reaches this conclusion despite being unfamiliar with the details of the operation of La Capra's model (see Mr. Cannata's response to Eversource Data Request 1-37 provided as Attachment EHC-R-5 and the pre-filed testimony of Mr. Cannata, page 12, lines 16-18). Mr. Cannata did not perform any analysis of actual pricing and dispatch data to evaluate his conclusion, and provided only hypothetical examples of extreme price volatility to illustrate the potential impact (see Mr. Cannata response to Eversource Technical Session question 26 provided as Attachment EHC-R-6 and response to Eversource Data Request 1-35 provided as Attachment EHC-R-7).

Mr. Richard Hahn of La Capra explained that he was consulted by Commission Staff regarding the development of competitive Default Service rate forecasts (La Capra technical session transcript at page 41-42 (provided as Attachment-EHC-R-8)). Unlike Mr. Cannata, Mr. Hahn is presumably familiar with the details of the operation of the La Capra model and he confirmed that (1) the approach used by Commission Staff was a reasonable method for estimating the cost of competitive retail Default Service, and (2) the use of monthly average gas price forecasts captures the impact of periodic spikes in the market price of electricity. (La Capra technical session transcript at page 42 and 50-51 (provided as Attachment EHC-R-9)).

Therefore, the projection of competitive retail Default Service prices produced from La Capra's LMP forecast provides a reasonable estimate of the market cost of electricity during all hours, including those during which the market price exceeds the cost of PSNH's generation.

**Q. Are any customer savings related to the operation of PSNH's generation included in the analysis?**

A. Yes, they are, because they are embedded in the ES rate estimates. PSNH ES rates have historically been based upon budget projections that assume generation will operate and reduce energy market purchases during periods prone to high prices. Savings from the operation of PSNH's generation have historically been passed on to customers and reflected in the ES rate as a result. However, as shown in Exhibit EHC-R-3, these savings have only partially offset other costs included in the budget's rate calculation and kept the ES rate generally above competitive retail electric prices. Commission Staff and the Commission's expert consultant, Liberty Consulting Group[6], reported to the Commission in their June 7, 2013, "Report on Investigation into Market Conditions, Default Service Rate, Generation Ownership and Impacts on the Competitive Electricity Market" filed in Docket No. IR 13-020 at page 10 that "with only very short-term exceptions, PSNH's default service rate has exceeded the others' [utilities] rates since mid-2009."

The net historic difference between PSNH's ES rate and competitive retail electric rates was one of the parameters used by Commission Staff to produce the forecast of ES rates on which my savings analysis was based. This forecasting method reasonably captures the savings

[6] Liberty Consulting Group is representing the Office of Energy and Planning in this proceeding.

from the operation of PSNH's generation, and those savings are reflected in the forecast of ES rates included in the savings analysis.

**Q. Did you identify any other flaws in Mr. Cannata's findings regarding customer savings from high winter prices?**

A. Yes, Mr. Cannata based annual savings projections of $116.6 million on a very limited two-and-a-half year period from January 2013 through June 2015. This period included only two complete winter seasons (November-March), one of which was the winter of 2013/2014 when New England experienced extreme spikes in natural gas and electricity prices. Operation of PSNH's generation saved customers $140.8 million from November 2013 through March 2014, but this figure dropped to $45.3 million from November 2014 through March 2015. (See response to Response to Data Request Staff TS-021 provided as Attachment EHC-R-10). Energy prices and the resulting savings from PSNH's generation will vary considerably from year to year based on weather and other market conditions. Using a limited sample of 2.5 years is inconclusive and in this case may overstate overall savings.

**Q. Should the projected five-year savings from divestiture be reduced by $583 million as proposed by Mr. Cannata?**

A. No. Because Mr. Cannata did not properly account for the costs of PSNH continuing to own and operate its generation, did not conduct the correct analyses for market prices and the dispatch of PSNH's generation, and did not appropriately consider the costs and savings of

PSNH's generation relative to the competitive market, Mr. Cannata was incorrect to adjust projected savings by $583 million for savings compared to market prices and market price spikes. Moreover, his conclusion is inconsistent with those provided to the Commission by Liberty Consulting Group, La Capra Associates, and the Commission's own Staff in Docket No. IR 13-020.

*2. Capacity load obligation payments ($206m)*

**Q. Did your savings analysis miss costs associated with the requirement to make load obligation payments, as Mr. Cannata contends?**

A. No, it did not. As discussed previously, the savings analysis was based upon a forecast of retail default service prices produced by Commission Staff. In its April 1, 2014 report, Commission Staff explains that the Default Service price forecasts were based upon capacity price forecasts produced by La Capra and a reasonable assumed load factor. The method used by Staff incorporates all load obligation payments anticipated at the time of their analysis into the forecast of Default Service prices. Mr. Cannata is correct that the outlook for capacity prices has since changed, but it's misleading to claim key cost components were excluded from the analysis simply because of the date upon which the forecast was produced.

**Q. Could a change in the outlook for capacity prices change the results of the savings analysis?**

A. It's possible, but an evaluation of all variables that have changed would need to be prepared to determine what the impact, if any, on the savings analysis would be. Mr. Cannata considered only the impact that higher capacity prices would have on the cost of competitive Default Service and ignored any other potential impacts that a change in projected capacity revenue would have on the analysis, such as a change in the sales price of the generation assets. And, as La Capra notes in its August, 2015 update, the increase in capacity prices had been accompanied by a decrease in energy prices as a result of low costs for gas and oil fuels. One cannot reliably look at one variable in isolation, as Mr. Cannata did.

**Q. Do you believe a new analysis needs to be performed at this time to assess the impact of higher capacity prices?**

A. No, I do not. In its August 2015 update prepared for Non-Advocate Commission Staff, La Capra noted that an increase in capacity price projections offset a decrease in forecasted natural gas prices and largely maintained the projected sales proceeds of the generation assets from what was estimated in 2014. A positive correlation between capacity prices and sales proceeds is implied in that conclusion and confirmed by Mr. Cannata. In Eversource Data Request 1-29 (provided as Attachment EHC-R-11), Mr. Cannata was asked, “Will an increase in capacity payments have an impact on the sale price? If yes, will an increase in capacity payments increase or decrease the total sale price?” Mr. Cannata responded, “All else being equal, the value of the plants should be higher. A buyer of the generation should reflect the higher capacity payment in their bid to the extent that they feel it is necessary to do so.” It’s therefore reasonable to assume that as a result of a competitive auction process customers will receive the benefit of any capacity value from the generation assets whether they are divested today, divested five years from now, or not divested at all. They will either benefit by avoiding potential rate increases associated with capacity market price increases, or by being compensated for the projected capacity value when the generation assets are sold. I refer you to the rebuttal testimony of Dr. Shapiro for additional information regarding this issue.

**Q. Should the projected five-year savings from divestiture be reduced by $206.3 million as proposed by Mr. Cannata?**

A. No. For the reasons presented above, Mr. Cannata was incorrect to adjust projected savings by $206.3 million for capacity load obligation payments.

*3. Gas price scenario ($70m)*

**Q. Do you agree with Mr. Cannata's proposal to adjust the estimated savings downward by $70 million related to a suggestion that a "low gas scenario" should not be used?**

A. No, I do not. The suggestion to proportionally adjust both the ES rate and competitive Default Service forecasts to account for an alternative gas price scenario is a convenient argument to make from the perspective of an analyst searching for flaws in my analysis, and could mistakenly be deemed valid upon a cursory read. However, Mr. Cannata's suggestion is not only inconsistent with the cost structure of PSNH's ES rate relative to the competitive market, it is inconsistent with observed price levels.

The April 1, 2014 Staff report on which my analysis was based did not include a "low gas" scenario projection of ES rates; it only provided competitive rates under a low gas scenario.

However, as explained previously, the difference between the reference case projections of ES and competitive Default Service rates produced by Commission Staff reflects the net total of (1) fixed costs of PSNH generation, (2) savings from operation of PSNH generation and (3) capacity payments for PSNH generation. In addition to lowering competitive Default Service rates, a reduction in natural gas prices would also reduce the dispatch and associated savings of PSNH generation. This means that the difference between the ES and competitive Default Service rates would be wider in a low gas scenario. This competitive dynamic suggests it is reasonable to compare the low-gas competitive Default Service rate to the reference case ES rate as I did. It also underscores the precarious competitive position that PSNH generation will remain in absent divestiture and securitization of stranded costs.

I also find the low gas scenario from the April 1, 2014 Staff report remains the most appropriate basis on which to evaluate divestiture. It’s widely acknowledged that the growth in production of natural gas from shale formations has led to a historically low-priced natural gas market. Even Mr. Cannata acknowledges that gas prices have reached such significant lows that common sense dictates they are unlikely to move any lower (see response to Eversource Data Request 1-39 provided as Attachment EHC-R-12). Furthermore, in the August 2015 update provided to Staff, La Capra lowered its projections of natural gas prices from what they projected in 2014. A comparison of the two forecasts actually shows that the 2014 low gas scenario on which my preliminary analysis was based is very close to the 2015 reference scenario provided by La Capra; this further validates my use of the low gas scenario in my July 6, 2015 analysis.

Finally, I note that the PSNH ES forecasts used in my July 6, 2015 analysis remains reasonable. As per the table below, ES rates have remained in a range consistent and in fact were actually higher than those used in Staff's April 1, 2014 report and subsequently my own analysis.

| 2015 Energy Service Rates | Jan - Jun | Jul - Dec | 2015 | Source |
|---|---|---|---|---|
| Forecast Energy Service Rate with No Scrubber | n/a | n/a | 8.20 | IR 13-020: NHPUC Staff Report 4/1/14, Page 4 |
| Forecast Energy Service Rate with Temp Rate | n/a | n/a | 9.20 | IR 13-020: NHPUC Staff Report 4/1/14, Page 4 |
| Forecast Energy Service Rate with Full Scrubber Recovery & 1/7 of Scrubber Deferral | n/a | n/a | 10.20 | IR 13-020: NHPUC Staff Report 4/1/14, Page 4 |
| | | | | |
| Energy Service Rate with No Scrubber | 9.58 | 8.00 | 8.79 | Approved Energy Service Rate less 0.98 cents/kWh |
| Energy Service Rate with Temp Rate | 10.56 | 8.98 | 9.77 | Approved Energy Service Rates: DE 14-235 |
| Energy Service Rate with Scrubber & 1/7 of Scrubber Deferral | 11.56 | 9.98 | 10.77 | Approved Energy Service Rates plus 1 cent/kWh |

| 2016 Energy Service Rates | Jan - Jun | Jul - Dec | 2016 | Source |
|---|---|---|---|---|
| Forecast Energy Service Rate with No Scrubber | n/a | n/a | 7.50 | IR 13-020: NHPUC Staff Report 4/1/14, Page 4 |
| Forecast Energy Service Rate with Temp Rate | n/a | n/a | 8.50 | IR 13-020: NHPUC Staff Report 4/1/14, Page 4 |
| Forecast Energy Service Rate with Full Scrubber Recovery & 1/7 of Scrubber Deferral | n/a | n/a | 9.50 | IR 13-020: NHPUC Staff Report 4/1/14, Page 4 |
| | | | | |
| Energy Service Rate with No Scrubber | n/a | n/a | 8.67 | Preliminary Energy Service Rate with Temp Rate less 0.98 cents/kWh |
| Energy Service Rate with Temp Rate | n/a | n/a | 9.65 | Preliminary Energy Service Rate: DE 15-415 Filed 9/28/15 |
| Energy Service Rate with Scrubber & 1/7 of Scrubber Deferral | n/a | n/a | 10.39 | Preliminary Energy Service Rate: DE 15-415 Filed 9/28/15 |

**Q. Should the projected five-year savings from divestiture be reduced by $70 million as proposed by Mr. Cannata?**

A. No. The conclusion of the above commentary is that the price forecasts used in Attachment EHC-1 to generate the preliminary customer savings estimate were reasonable at the time of submission, and remain reasonable today when considering updated price forecasts from La

Capra as well as the actual ES rates. Accordingly, Mr. Cannata was incorrect to adjust projected savings by $70 million related to my use of Staff's low gas price scenario.

*4. Scrubber amortization ($120m)*

**Q. Do you agree with Mr. Cannata's proposal to adjust the estimated savings downward by $120 million related to the scrubber amortization?**

A. No, I do not. Mr. Cannata misunderstands the elements of the scrubber rate such that this adjustment was suggested entirely based on his errors.

**Q. Please explain the errors you see with Mr. Cannata's testimony regarding scrubber amortization.**

A. It is clear from Mr. Cannata's testimony that he overlooks the two components that need to be taken into account when calculating the "scrubber rate". Consistent with the Staff testimony of Steve Mullen at page 25, line 11, in DE 11-250 (testimony adopted at hearing by Mr. Frantz, the Director of the Commission's Electric Division), the permanent rate recovery of the scrubber costs need to take into account: "the annual cost of owning and operating the Scrubber and the previously unrecovered costs; that is the costs not recovered due to the difference between the permanent rate level and the temporary rate level."

The primary issue with his adjustment is that the end of the seven-year deferral in the baseline (i.e. no-divestiture) scenario would occur starting in 2023, which is beyond the

2017-2021 period that both Mr. Cannata and I refer to in our testimonies. Instead, Mr. Cannata's scrubber adjustment of -0.60 cent/kWh or a reduction in the estimated savings by $120M over the five-year period 2017 through 2021, eliminates the full recovery of ongoing annual scrubber cost, and only allows for recovery of the previously unrecovered or deferred scrubber costs. Therefore, no adjustment is required even under Mr. Cannata's assertion during the five-year period on which we both focused.

In addition, Mr. Cannata makes errors in his analysis by using incorrect inputs. In his response to OEP 1-13 (provided as Attachment EHC-R-13), he confirms that he "assumes a 1.4 cents/kWh scrubber cost for the 2016-2022 time period", and in his response to Eversource 1-44 (provided as Attachment EHC-R-14), he claims that "the Chung analysis assumed that it would take a 1.0 cent/kWh charge…to pay for the deferred scrubber account". He then uses this interpretation to calculate his adjustments. Neither figure is correct and it is unclear to me where Mr. Cannata came up with these figures. For example, nowhere in my testimony or exhibits do I equate a "1.0 cent/kWh charge" to payment of the scrubber deferral. These sorts of errors call into question the credibility of Mr. Cannata's analysis.

**Q. Should the projected five-year savings from divestiture be reduced by $120 million as proposed by Mr. Cannata?**

A. No. For the reasons presented above, Mr. Cannata was incorrect to adjust projected savings by $120 million related to scrubber amortization.

*5. Rate case stay-out ($77m)*

**Q. Do you agree with Mr. Cannata's proposal to adjust the estimated savings downward by $77 million related to a placeholder estimate of customer benefits from extending the rate case stay-out by an additional two years?**

A. No, I do not. I will address this in the following section where I critique the work of Mr. Dudley.

*Additional issues with Mr. Cannata's testimony*

**Q. Are there any other conclusions reached by Mr. Cannata you wish to address?**

A. Yes. Based on a very cursory evaluation, Mr. Cannata concludes that customer migration has balanced with market conditions and that the so-called "death spiral" of customer migration may not be occurring[7]. The risk that increased migration would exacerbate the already challenged competitive position of PSNH's ES rate is a critical issue to be factored into the decision regarding divestiture, and should not be dismissed based upon such a limited analysis.

Mr. Cannata presents the capacity factor of Merrimack Station as an indicator of customer migration and suggests that it will remain stable because "the down-side risk of the current – very low – price of gas is minimal"[8]. Mr. Cannata purportedly bases his conclusion regarding future natural gas prices on an economic evaluation of natural gas exploration

[7] Testimony of Michael D. Cannata, page 21, Line1-12 and page 20, line 14-16
[8] Testimony of Michael D. Cannata, page 21, Line1-12 and page 20, line 16-17

costs, production costs, transmission costs and investor returns[9]. However, in his response to Eversource Data Request 1-40 (provided as Attachment EHC-R-15) he explained that he didn't produce or review any materials that evaluated these drivers of natural gas prices.

Once again, Mr. Cannata's failure to consider the impacts of fixed costs left his analysis incomplete and led him to make incorrect conclusions. It's impossible to make any meaningful conclusions regarding potential customer migration without considering how these fixed costs impact the competitive position of the ES rate relative to the competitive retail market. Exhibit EHC-R-3 shows how the fixed costs of PSNH generation, including all scrubber costs, placed the ES rate at a disadvantage to the competitive market from 2013-2016. The figures demonstrate the excess costs PSNH customers incurred even after the benefits of savings from high market prices and capacity payments were accounted for.

It is very unlikely that migration will remain stable as Mr. Cannata suggests if the ES rate disadvantage observed from 2013-2016 persists. Furthermore, the rate impact on remaining customers will grow as fixed costs are recovered from a shrinking volume of ES sales. It is inappropriate and irresponsible to New Hampshire's electric customers for Mr. Cannata to so readily diminish the risk of the "death spiral" phenomenon, given the current cost structure of PSNH generation. This is especially true in light of Mr. Cannata's own past testimony raising the level of migration from default service as an issue of concern. *See, e.g.*:

[9] Testimony of Michael D. Cannata, page 21, Line1-12 and page 20, line 18-20

- Docket No. DE 06-068, Testimony of Michael D. Cannata, Jr., page 5, where he "concluded that recent customer migration could introduce volatility into future PSNH customer energy service prices" and page 7 where he testified "significant customer and load migration introduces additional uncertainty into the capacity and energy planning requirements."
- Docket No. DE 10-121, Testimony of Michael D. Cannata, Jr. at page 5, where he "concluded that the volume of customer migration in 2009 introduced volatility and difficulty into supplying future PSNH customer energy service needs, because of the inability to adjust purchases in a timely manner for unknown customer decisions.
- Docket No. DE 13-108, Testimony of Michael D. Cannata, Jr. at page 5, where he "concluded that while the volume of customer migration in 2012 was reasonably constant throughout the year, it still introduced some uncertainty into the supplemental energy procurement process due to the inability to adjust purchases in a timely manner for unknown customer decisions."
- Docket No. DE 14-120, Testimony of Michael D. Cannata, Jr. at page 6, where he "concluded that while the volume of customer migration in 2013 was reasonably constant throughout the year, it still introduced some uncertainty into the supplemental energy procurement process due to the inability to adjust purchases in a timely manner for unforeseeable customer decisions."

## REBUTTAL REGARDING MR. DUDLEY'S PREFILED TESTIMONY

**Q. Please summarize the issues you see with Mr. Dudley's testimony, as they relate to your own testimony.**

A. I observe three primary issues with Mr. Dudley's testimony, as they related to my testimony:

1. Mr. Dudley inappropriately applies a "known and measurable" standard to the placeholder estimate for rate case stay-out savings;

2. Mr. Dudley dismisses the low interest rate environment as a compelling reason to expedite divestiture.

3. Mr. Dudley ignores the Company's right to a fair return by suggesting the Company may simply refinance the scrubber with all debt and no equity return.

Below I address these three primary issues, plus additional issues with Mr. Dudley's testimony.

*1. Mr. Dudley inappropriately applies a "known and measurable" standard to the placeholder estimate for rate case stay-out savings*

**Q. Mr. Dudley testifies (page 9, line 6) that any amount of "savings" ascribed to the Settlement Agreement's rate case stay-out provision violates "the 'known and measurable' standard of traditional cost-of-service regulation." Do you agree with Mr. Dudley?**

A. No. The "known and measurable" standard of traditional cost-of-service regulation is a concept used by this Commission only to make *pro forma* changes to test year figures in a rate case. Mr. Dudley's reliance upon the use of only "known and measurable" data in the context of this proceeding is incorrect.

Mr. Dudley testified that "acceptance by the Commission of the projected cost savings from the rate case stay-out provision of the Settlement Agreement would constitute a gross departure from traditional regulatory practice," contending that only legitimate costs that meet "the 'known and measurable' standard of traditional cost-of-service regulation, and as extensively applied by the U.S. Federal Energy Regulatory Commission ('FERC') under its Good Utility Practice guidelines" may be considered (Page 9, line 6).

However, when asked during discovery for support for that FERC reference, in response to Eversource data request 1-2 (provided as Attachment EHC-R-16) Mr. Dudley provided vague references to "good utility practice," cited to the FERC's regulations at 18 CFR §154.303, and discussed how a utility's revenue requirements are determined.

While I am not a lawyer, I understand that the Commission's statutory mandate in this proceeding is set forth in RSA 369-B:3-a, II: "As part of an expedited proceeding, the commission shall review the 2015 settlement proposal and determine whether its terms and conditions are in the public interest." In the Supplemental Order of Notice issued by the Commission on June 26, 2015, at pages 2-3, the Commission listed issues it deems relevant to its consideration of the Settlement, including "the provisions of SB 221; whether divestiture, either under the terms and conditions of the Agreement or otherwise, is in the public interest; the impact of divestiture on (i) all PSNH customer classes, (ii) the economy in PSNH's service territory, and (iii) the ability of our State's enterprises, across industries, to attract and retain employment; how PSNH's generation plants should be divested, if the decision to divest is made by the Commission; whether and how stranded costs should be securitized in such an instance; the appropriate rate design to fairly allocate the costs of divestiture among customer classes; and the procedural schedule to accomplish the above.

Not one of these issues calls into play the “good utility practice” standard relied upon by Mr. Dudley in both his testimony and data request response. And, “known and measurable” data is not available for <u>any</u> of the issues deemed relevant by the Commission. Those issues are forward-looking, and all the testimony discussing those issues – including the testimony of Staff itself – are based upon forecasts and expert opinion of inherently unknown and immeasurable future events.

Mr. Dudley’s reliance upon the FERC regulation at 18 CFR §154.303 (included as Attachment EHC-R-17) is also incorrect. 18 CFR §154.303, captioned “Test Periods,” applies only to rate change filings under the Natural Gas Act (18 CFR §154.1), and the only reference to the “known and measurable” standard appears in subparagraph (a)(4) as follows: “The rate factors (volumes, costs, and billing determinants) established during the base period may be adjusted for changes in revenues and costs which are known and measurable with reasonable accuracy at the time of the filing and which will become effective within the adjustment period.” Mr. Dudley’s citation supports the Company’s testimony that the "known and measurable" standard is used only in rate cases, and is not an appropriate standard for review of the issues in this proceeding.

Finally, Mr. Dudley's discussion in data request response Eversource 1-2 (provided as Attachment EHC-R-16), of how a utility's revenue requirements are determined are inapposite to this proceeding. This proceeding is not a rate case, and there are no *pro forma* adjustments to any test year figures at issue.

Indeed, virtually all the testimony filed in this proceeding – including Mr. Dudley's own testimony -- includes data from forecasts and estimates and opinions, none of which is "known and measurable." If only "known and measurable" data may be validly used in this proceeding as suggested by Mr. Dudley, the Commission would have to decide this proceeding in a vacuum.

Mr. Dudley further creates issues with his used of "known and measurable" when he testifies that as a result of that standard it is improper to consider costs that "will likely change with the passage of time" (page 9, line 13). One thing that likely everyone in this docket can agree on is that every piece of data used in every witness's analyses and testimony, including Staff's, "will likely change with the passage of time." Hence, per Mr. Dudley's hyperbole, none of the analyses provided by any of the witnesses in this docket – including that of his own colleagues on Staff – should be considered by the Commission. He expressly testifies that such information should "be disregarded by the Commission." (Page 9, line 19).

Mr. Dudley's confusion of the "known and measurable" and "good utility practice" standards, references to revenue requirement determinations, and reliance upon a FERC Natural Gas Act ratemaking regulation are all inappropriate and wrong. I am unaware of any use of the "known and measurable" standard by this Commission in any matter other than in the context of rate case pro forma adjustments (per Rule Puc 1904.02(a)(2)).

**Q. Was it reasonable for the settling parties to include a placeholder estimate for the benefits of the two-year rate case stay-out, based on previously-approved rate increases?**

A. Yes, consistent with the discussion above, I still believe my placeholder estimates serve as reasonable proxies for the kind of benefits that customers will have realized due to the stay-out. It is important to understand that distribution revenue requirements are established based on many factors, including planned and unplanned capital investments as of the time of the rate application, labor inflation, regulatory changes, rising costs of business, balance sheet items, and others. Surely the benefits of a rate-case stay-out are non-zero and substantial, with the actual increases from the last two rate cases serving as a reasonable proxy.

**Q. Should the projected five-year savings from divestiture be reduced by $77 million as proposed by Mr. Cannata and based on Mr. Dudley's testimony?**

A. No. For the reasons presented above, Mr. Cannata was incorrect to adjust projected savings by $77 million based on Mr. Dudley's concerns regarding the rate case stay-out provision of the Settlement Agreement.

*2. Mr. Dudley dismisses the low interest rate environment as a compelling reason to expedite divestiture.*

**Q. Please summarize Mr. Dudley's main point regarding the current low interest rate environment.**

A. Mr. Dudley's premise is best summarized by the following quote from his testimony: "I am not persuaded that the specter of an imminent rate increase, nor the cost of increased interest rates, should be major driving factors for the expedited sale of the generation fleet." (Page 8, lines 8-10). Mr. Dudley proceeds to testify that a 1 percent and 2 percent increase in interest rates on a $507 million financed amount would only cost customers $38.3 million and $76.5 million respectively over the life of the securitization. The average SCRC rate impact associated with this increase is not minimal. As the table below shows, the average SCRC rate impact in year 1 is 0.061 cents/kWh for a 1 percent increase in the interest rate and a 0.123 cents/kWh for a 2 percent increase in the interest rate. This equates to a roughly a 10 percent and a 20 percent increase in the estimated average year 1 SCRC rate of 0.67 cents/kWh calculated in my Attachment EHC-1, line 8.

| Year | Interest @ 3%* | Interest @ 4% | Increase Over 3% Interest | SCRC MWh | SCRC Impact cents/kWh | Interest @ 5% | Increase Over 3% Interest | SCRC MWh | SCRC Impact cents/kWh |
|---|---|---|---|---|---|---|---|---|---|
| 2017 | $ 14,751 | $ 19,668 | $ 4,917 | 8,000,000 | 0.061 | $ 24,585 | $ 9,834 | 8,000,000 | 0.123 |
| 2018 | $ 13,737 | $ 18,315 | $ 4,578 | 8,000,000 | 0.057 | $ 22,894 | $ 9,157 | 8,000,000 | 0.114 |
| 2019 | $ 12,722 | $ 16,963 | $ 4,241 | 8,000,000 | 0.053 | $ 21,204 | $ 8,482 | 8,000,000 | 0.106 |
| 2020 | $ 11,708 | $ 15,610 | $ 3,902 | 8,000,000 | 0.049 | $ 19,513 | $ 7,805 | 8,000,000 | 0.098 |
| 2021 | $ 10,693 | $ 14,258 | $ 3,565 | 8,000,000 | 0.045 | $ 17,822 | $ 7,129 | 8,000,000 | 0.089 |
| 2022 | $ 9,679 | $ 12,905 | $ 3,226 | 8,000,000 | 0.040 | $ 16,132 | $ 6,453 | 8,000,000 | 0.081 |
| 2023 | $ 8,665 | $ 11,553 | $ 2,888 | 8,000,000 | 0.036 | $ 14,441 | $ 5,776 | 8,000,000 | 0.072 |
| 2024 | $ 7,650 | $ 10,200 | $ 2,550 | 8,000,000 | 0.032 | $ 12,750 | $ 5,100 | 8,000,000 | 0.064 |
| 2025 | $ 6,636 | $ 8,848 | $ 2,212 | 8,000,000 | 0.028 | $ 11,060 | $ 4,424 | 8,000,000 | 0.055 |
| 2026 | $ 5,621 | $ 7,495 | $ 1,874 | 8,000,000 | 0.023 | $ 9,369 | $ 3,748 | 8,000,000 | 0.047 |
| 2027 | $ 4,607 | $ 6,143 | $ 1,536 | 8,000,000 | 0.019 | $ 7,678 | $ 3,071 | 8,000,000 | 0.038 |
| 2028 | $ 3,593 | $ 4,790 | $ 1,197 | 8,000,000 | 0.015 | $ 5,988 | $ 2,395 | 8,000,000 | 0.030 |
| 2029 | $ 2,578 | $ 3,438 | $ 860 | 8,000,000 | 0.011 | $ 4,297 | $ 1,719 | 8,000,000 | 0.021 |
| 2030 | $ 1,564 | $ 2,085 | $ 521 | 8,000,000 | 0.007 | $ 2,606 | $ 1,042 | 8,000,000 | 0.013 |
| 2031 | $ 549 | $ 733 | $ 184 | 8,000,000 | 0.002 | $ 916 | $ 367 | 8,000,000 | 0.005 |
| **Total** | **$ 114,753** | **$ 153,004** | **$ 38,251** | | | **$ 191,255** | **$ 76,502** | | |

I refer you to the rebuttal testimony of Mr. Lembo and Ms. O'Neil for further discussion on this topic.

*3. Mr. Dudley ignores the Company's right to a fair return by suggesting the Company may simply refinance the scrubber with all debt and no equity return.*

**Q. Please explain your concerns with Mr. Dudley's suggestion that the scrubber could be refinanced in the near-term with only debt.**

A. Mr. Dudley testifies that "If indeed the goal of PSNH is to quickly take advantage of historically low interest rates before that opportunity lapses, and given that the timing of the proposed RRB issuance and the stranded cost determination are months away, it would appear that PSNH is in a position to do so currently without divestiture (assuming modification by the Legislature of RSA 125-O:13), and at a lower maximum borrowing amount (scrubber costs only) since the stranded costs from the other generating assets would not be included in the total debt issuance." (Page 15, line 15).

While I am not a lawyer, I understand that Mr. Dudley's suggestion is constitutionally problematic. Mr. Dudley apparently believes that by financing the scrubber with 100% debt, and thereby eliminating any equity return, shareholders would no longer be entitled to any profit from the operation of that asset. In Mr. Dudley's world, shareholders of the Company would maintain the operational and prudence risks of keeping the scrubber in commercial service to provide benefits to customers, but would receive nothing for doing so. An all-risk, no reward proposition does not comply with fundamental aspects of the regulatory compact as found by the U.S. Supreme Court in *Bluefield Water Works and Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923).

In *Bluefield*, the U.S. Supreme Court held "A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties." The Court also held, "The return should be reasonably sufficient to assure confidence in the financial soundness of the utility, and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties." Mr. Dudley's scheme runs afoul of both these fundamental principles of utility regulation.

If it is Mr. Dudley's assertion that issuance of high levels of debt can save customers money by eliminating equity returns, he is wrong. PSNH is entitled to earn a fair return based upon the value of the property employed to provide service to the public. Unless the Commission continues to provide PSNH with a return to shareholders that reflects the risk of operating and maintaining the scrubber, the Court's *Bluefield* protection would be violated. And, if to comply with *Bluefield*, the Commission allowed shareholders to earn a return "equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties," all of the "savings" Mr. Dudley testifies to disappear.

Mr. Dudley's scheme also violates the second portion of the Court's holding in *Bluefield*, where the Court held a utility is entitled to a return that assures its financial soundness and sufficient to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. As witnesses Lembo and O'Neil discuss, Mr. Dudley's plan would upend PSNH's capital structure, making the Company highly-leveraged, more risky, and restrict its access to capital markets.

*Other issues with Mr. Dudley's testimony*

**Q. Mr. Dudley testifies that securitization of stranded costs is unnecessary and that he is not "convinced that it constitutes the cheapest alternative for ratepayers." (Page 14, line 14). Based upon these positions, Mr. Dudley testifies, "a more cost-effective alternative for ratepayers may exist, and if so, I believe a credible case could be made to**

**the Legislature to modify or repeal RSA 125-O:13." (Page 14, line 19). Do you agree with Mr. Dudley?**

A. Once again, I disagree with Mr. Dudley. First, his suggestion that the Legislature could be asked to consider modification or repeal of RSA 125-O:13 makes no sense. RSA 125-O:13 is the "Compliance" provision of the Scrubber Law. It is the part of the law that required installation of the scrubber by mandating, "I. The owner shall install and have operational scrubber technology to control mercury emissions at Merrimack Units 1 and 2 no later than July 1, 2013." RSA 125-O:13, I. Modification or repeal of that underlying mandate years after the Company has designed, permitted, procured, constructed, and put the scrubber into commercial service on behalf of customers is just not constitutionally permissible. I refer the Commission to Article 23 of the New Hampshire Constitution, which prohibits retrospective laws. PSNH cannot "uninstall" the scrubber and get its money back. Mr. Dudley's suggestion that the scrubber law's mandate can disappear is not credible.

Second, as I discussed earlier, Mr. Dudley recommends that the costs of the scrubber be financed via a traditional first mortgage bond issuance prior to the end of 2015 in order to lock in lower interest rates prior to the FOMC's remaining 2015 meetings. Yet, in response to OEP data request 1-27 (provided as Attachment EHC-R-18), Mr. Dudley stated that amendment of the scrubber law "would probably be required legally to bring about the projected bond financing that I discuss." The Legislature is out of session, and will not return until 2016 – past Mr. Dudley's 2015 time period for a traditional financing. This inconsistency within Mr. Dudley's own testimony places doubt on his suggestion. Moreover, this case should be decided based on the law as it exists and not on some speculative change in law that is not even before the Legislature. And, even in the unlikely event that the Legislature could be convinced to amend the scrubber law, such an amendment would not likely take effect until at least early next summer – well-beyond the Federal Open Market Committee meetings discussed in Mr. Dudley's testimony (page 13, line 11).

**Q. Mr. Dudley supports his traditional debt offering recommendation by testifying, "the financial benefit of a traditional bond issuance can be illustrated by using a simple amortization schedule" comparing his proposed debt financing with the amortization schedule provided by Mr. Chung in his prefiled testimony. (Page 19, line 14). Does Mr. Dudley's simple amortization schedule prove his point?**

A. Once again, the answer is no. Mr. Dudley made a basic mistake of arithmetic in his amortization schedule. Importantly, even he admitted to that error in his response to Eversource data request 1-7 and 1-9 (provided as Attachments EHC-R-19 and Attachment EHC-R-20). Instead of <u>adding</u> the unrecovered deferrals related to the scrubber into the principal amount that would need to be financed, he <u>subtracted</u> $120 million to represent "the recovered scrubber costs." The amount of the scrubber recovered to date via temporary rates does not come close to $120 million. ($120 million would represent almost 30% of the entire nominal investment in the scrubber ($120 million /$422 million), collected in just over three years since temporary rate were instituted in April, 2012, at a rate level that covers only approximately 2/3 of the scrubber costs, without even considering the associated carrying costs of that investment. That level of "recovered scrubber costs" is plainly wrong.

Mr. Dudley initially indicated that his $120 million subtraction comes from my Attachment EHC-2 – but the $120 million amount on that Attachment (Line 11, "Total Estimated Under Recovery as of 12/31/15" = $119,653,000) are additional unrecovered costs (not costs recovered to day) This $120 million should have been added to (not subtracted from) the scrubber investment to determine the principal amount of his hypothetical financing. Mr. Dudley's arithmetic error resulted in his testimony containing an amortization table that includes a nearly quarter-billion dollar mistake ($120 million times 2 = $240 million). It is no wonder that his amortization table (using a principal amount financed of $306.8 million) "yield[s] substantial savings for ratepayers as compared with the issuance of the RRBs" (page 20, line 6) that appears in the amortization table at Attachment EHC-1, page 5, where I used as my principal amount financed over $500 million ($507,196,000). Clearly, a $500+ million financing would require larger payments than a $300+ million financing. Mr. Dudley's comparison is wrong, and his testimony regarding that comparison must be totally disregarded.

Admitting his error, Mr. Dudley revised his amortization chart in response to data requests from Eversource and OEP. As a result of those revisions, Mr. Dudley admitted in response that "The revised payment schedule, as compared to the one depicted in Mr. Chung's Attachment EHC-1 at 5, track each other fairly closely in terms of amortization and interest expense," completely negating his prefiled testimony stating, "a traditional bond issuance under the conditions described above, could potentially yield substantial savings for ratepayers as compared with the issuance of the RRBs post divestiture." (Page 20, line 7). He even admitted in response to Eversource Data Request 1-10 (provided as Attachment EHC-R-21), that his "revised schedule shows $11.5 million more in interest expense than Mr. Chung's attachment."

**REBUTTAL REGARDING MR. STACHOW'S PREFILED TESTIMONY**

**Q. What issues do you have with Mr. Stachow's pre-filed testimony?**

A. Mr. Stachow's testimony is largely a summary of the other Staff witnesses' testimony, accompanied by recommendations that flow directly from the conclusions of other Staff witnesses. In response to a number of Eversource requests, Mr. Stachow indicated that he relied on those other witnesses for the substantive information contained in his testimony. Hence, the infirmities contained in those other witnesses' testimony all negatively impact that of Mr. Stachow.

In addition to being based upon flawed analysis, the conclusions presented by Mr. Stachow are inconsistent with reasonable understandings of competitive markets. Staff highlights customer benefits associated with generation during high price periods and rising capacity prices to support their conclusions in favor of continued ownership by PSNH for five years. However, these are precisely the same factors that drive the expected sales price of the generating assets. Please refer to the rebuttal testimony of Dr. Shapiro for a further exploration of this topic.

Furthermore, it's not clear that Mr. Stachow properly considered the risks associated with the proposal to delay sale by five years. The current outlook for high winter prices and rising capacity prices presented by Staff increases the likelihood of a successful auction and the expected amount of proceeds that will offset stranded costs. Meanwhile, the current interest rate environment provides the opportunity to securitize those stranded costs at attractive rates. However, the outlook for all of these key drivers of the analysis is subject to change.

A reversal of market prices during the five-year delay could have compounding negative outcomes for customers. Those customers supplied by PSNH Default Energy Service would continue to pay prices that exceeded the competitive market cost of electricity. Expected proceeds from the sale of assets would be diminished and the risk of a failed auction would increase. Lastly, an increase in interest rates would increase the cost of securitizing stranded costs. While this is one scenario of several that could potentially emerge over the proposed five-year delay, it's an important possibility to factor into the evaluation of the Settlement Agreement and it is not clear Mr. Stachow did so.

## REBUTTAL REGARDING DR. BERKMAN'S PREFILED TESTIMONY

**Q. What issues do you have with Dr. Berkman's pre-filed testimony?**

A. Though I have no reason to doubt Dr. Berkman's credentials, I would caution the Commission against the merit of some of his statements. For example, in his direct testimony, Dr. Berkman writes that "rather than reducing consumer electricity costs, the proposal may actually increase them, leading to negative rather than positive economic impacts." Berkman testimony, Page 3, lines 12-14. Dr. Berkman acknowledges both that this conclusion was reached based on the "high gas scenario" that was run "at the request of Staff" (Berkman testimony, Page 4, lines 14-16) and that no other variable was changed in the Settlement team's analysis other than the gas prices, as directed by Staff. (Berkman response to Eversource 1-71 provided as Attachment EHC-R-22). I suspect Dr. Berkman would agree with me that this "high gas scenario" as developed by Staff was an improperly-constructed one, and a better-constructed scenario would have suggested adjustments other price-related variables to maintain directional integrity of the La Capra price forecast and other internal consistencies, as within the La Capra model those variables are intrinsically linked. In other words, Staff asked REMI and the Company for a nonsensical analysis. Therefore, it surprises me that Dr. Berkman would think it reasonable to draw any conclusions on the improperly-constructed "high gas scenario".

I also question the appropriateness of Dr. Berkman's suggestion of the use of a cost-benefit analysis in the context of the Settlement Agreement, with a cost-benefit analysis being defined as a study that measures "economic efficiency…[as] determined by whether benefits exceed costs" (Berkman testimony, page 9 at 13-18). Such studies are appropriate in the context of investment decisions, especially where there are multiple alternatives and uncertainties, but that is not the situation here. Here, the Legislature has made a public policy decision that favors the "aggressive" and "expeditious" restructuring of the electric utility industry. Moreover, in 2015 the Legislature expressly changed the standard of review relating to divestiture of PSNH's generation assets. Until the enactment of Senate Bill 221 in

2015, RSA 369-B:3-a would permit divestiture only if it was "in the economic interest of retail customers of PSNH." That "economic interest" standard was amenable to Dr. Berkman's cost-benefit analysis. However, in 2015 N.H. 221:10, the Legislature amended RSA 369-B:3-a to allow divestiture if it meets the broader "public interest" standard. The current "public interest" standard embodies public policies beyond mere economics, making a cost-benefit analysis ineffective.

**CONCLUSION**

**Q. Do you have any concluding thoughts you wish to share?**

A. Yes, I do. First of all, it is important for the Commission to understand that over a dozen settling parties with diverse interests signed onto the Settlement Agreement, and this support extends to the preliminary savings estimate contained in my July 6, 2015 testimony. The Settlement Agreement is exactly what the Legislature intended, when it enacted 2014 N.H. Laws, Chapter 310, "AN ACT relative to the divestiture of PSNH assets and relative to the siting of wind turbines" where it state that one of the express purposes of that law was to "promote the settlement of outstanding issues involving stranded costs" (2014, 310:1).

Staff issued testimony containing an aberrant perspective relative to that contained in the Settlement Agreement as well as the testimony submitted across the settling parties, which include such significant and diverse parties as Tom Frantz and Anne Ross, the Director of the Electric Division and the General Counsel of this Commission; the OCA; the OEP; and, two State Senators. It is highly reasonable to infer that the combined wisdom of these diverse settling parties is in the best interest of the New Hampshire's electric customers, and a perspective that conflicts significantly with that collective understanding should be called into question.

It is also important to note that I consistently characterized my analysis as a "preliminary savings estimate," with more precise figures to be determined after the sale proceeds were known. The general point of the exercise was not to suggest a precise stranded cost or customer savings estimate, but to show directionally where such estimates could fall under a reasonable set of assumptions. To critique the forecasting precision of this preliminary estimate and to make one-off adjustments to such an estimate is analytically invalid.

Finally, I remind the Commission that a policy decision has been made by the legislature that New Hampshire is to expedite the completion of restructuring with the sale of PSNH's generating facilities. The Settlement Agreement is simply an enactment of that policy decision. Whether the result of flawed analysis or an alternate agenda, Staff's testimony is highly inconsistent with that policy directive and should be largely disregarded. In contrast, the Settling Parties have worked extremely hard to meet the requirements of the legislature, satisfy a wide range of interests, and craft a settlement that is in the best interest of New Hampshire's electric customers for the long term.

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

A. Yes, it does.