

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

Docket No. DE 14-238
Determination Regarding PSNH's Generation Assets

REBUTTAL TESTIMONY OF JOHN ANTONUK & JIM LETZELTER

on behalf of
The Office of Energy and Planning

November 23, 2015

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1 **I. INTRODUCTION**

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

3 A. My name is John Antonuk of Liberty Consulting Group, Inc. My business address is 279
4 North Zinns Mill Road, Suite H, Lebanon, PA 17042.

5

6 My name is Jim Letzelter of Liberty Consulting Group, Inc. My business address is 279
7 North Zinns Mill Road, Suite H, Lebanon, PA 17042.

8

9 **Q. Did you previously file direct testimony in this proceeding?**

10 A. Yes. We jointly filed testimony dated July 17, 2015, on behalf of the Office of Energy and
11 Planning.

12

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

14 A. The purpose of this testimony is to provide our comments on the testimony submitted by
15 Non-Advocate Staff in this proceeding, and to reaffirm the continuing validity of our position
16 that divestiture of PSNH's generation assets in the time and manner set forth in the
17 Settlement Agreement is in the public interest. The testimony of Non-Advocate Staff does
18 not present substantial reasons, relying as it does on a number of critical errors and
19 omissions, to contradict our position, and that of twelve other settling parties, that divestiture
20 and securitization of the resulting stranded costs should be completed as soon as possible in
21 order to eliminate customer risk, stop customer subsidization of PSNH's uneconomic fossil
22 generation plants, and realize the substantial savings that securitization will bring.

1 Divestiture and securitization will bring substantial benefits because:

- 2 • PSNH's Default Energy Service (ES) rates continue, as has been true for some time,
3 to exceed market rates;
- 4 • Without action, a sizeable gap between PSNH's rate and the market will continue,
5 eventually making continuation of the current regime unsustainable, and continuing a
6 debilitating rate spiral that will eventually affect non-ES customers as well;
- 7 • The reason for the gap between ES and market rates has been and will continue to be
8 the high capital and operating costs of the PSNH fleet (driven by its fossil units);
- 9 • The only feasible way to change those economics is to refinance stranded costs (the
10 gap between book and market value of the fleet and the sizeable added burden of
11 costs now being deferred) through securitization;
- 12 • Divestiture and securitization will generate a savings in revenue requirements of \$40
13 million per year;
- 14 • As a result, the only alternative left would be litigation over a large disallowance that
15 will face a long journey through the courts; every year of that journey will cost
16 customers another \$40 million, and there are no guarantees of the result at the end.

17 We therefore continue to urge the Commission to approve the Settlement Agreement, to
18 provide for the prompt divestiture of the PSNH generation fleet and the use of securitization
19 for stranded costs, and to move now to retain the services of an auction manager in order to
20 expedite divestiture should the Commission determine it to be in the public interest.

1 **II. CENTRAL POINTS OF THIS TESTIMONY**

2 **Q. Please summarize your testimony briefly.**

3 A. Our testimony:

- 4 • Shows how the fossil units lie at the root of the significant gap between PSNH ES
5 rates and market prices, and how the Settlement Agreement seeks to address the
6 problem that the fleet causes for ES customers today, which, without action, will
7 envelop all other PSNH customers in the future;
- 8 • Illustrates the large and unnecessary costs that customers will pay should PSNH
9 retain the plants, either indefinitely or for the interim period addressed by Non-
10 Advocate Staff; and
- 11 • Explains how Mr. Cannata's one-sided, analytically incorrect adjustments fail to
12 undermine the conclusion that divestiture and securitization will produce very large
13 customer savings.

14

15 This testimony also:

- 16 • Shows how near-term debt financing of stranded costs without divestiture, as
17 discussed by Mr. Dudley, is unprecedented, financially impracticable, and
18 inconsistent with fundamental regulatory principles; and
- 19 • Discusses how this country's long and successful experience with generation asset
20 divestiture renders the unprecedented auction process proposed by Professor Cramton
21 unnecessary and, more significantly, counterproductive to maximizing value for
22 customers.

1 **III. CUSTOMER SAVINGS FROM DIVESTITURE AND SECURITIZATION**

2 **Q. Non-Advocate Staff witness Michael D. Cannata, Jr. discusses how divestiture of**
3 **PSNH’s generation assets could cost customers more than \$650 million over the first**
4 **five year period. Do you agree with his conclusion?**

5 A. No. Mr. Cannata’s analysis makes a number of errors. It is simply wrong to conclude that
6 customers gain significant value from PSNH’s continued ownership of generation. To the
7 contrary, the overwhelming evidence shows that customers will achieve substantial savings
8 through divestiture, followed by securitization. Before discussing the specifics of Mr.
9 Cannata’s analysis, it is important to place the basic economics of PSNH’s generation fleet
10 and resulting costs to PSNH default energy service (“ES”) customers into the broad, market-
11 focused perspective that applies here.

12 That perspective, dominated by two overarching factors, demonstrates the urgency in
13 completing the restructuring of New Hampshire’s electric utilities without delay, consistent
14 with the public policy in New Hampshire (see RSA 374-F). *First*, currently, and for some
15 years, PSNH’s ES customers bear responsibility (through current charges and deferrals) for
16 costs above market. Market rates would have offered PSNH ES customers rates lower, not
17 higher, than those of other utilities in the state. Quite simply and directly, the PSNH fossil
18 plants have been the reason for these higher costs. No supportable basis has been shown for
19 postulating market conditions that will reverse this trend in the foreseeable future (let alone
20 drive it overwhelmingly in the opposite direction).

21 Second, ES customers are currently paying PSNH’s approved weighted average cost of
22 capital (“WACC”) of approximately 11% on the generation rate base, which includes the

1 capital costs of the Merrimack Station Scrubber. That same authorized rate of return applies
2 to deferred costs. Customers are obligated to pay PSNH this 11% return on the full net book
3 value of PSNH's generation fleet (over \$646 million)¹ regardless of the actual value of those
4 plants to customers (or to the market, as divestiture would establish).

5 The Settlement Agreement addresses both of these drivers of high customer costs. Divestiture
6 mitigates the rate impacts that customer subsidization of uneconomic plants has been
7 producing and continues to cause today. Notably, it also eliminates the future cost risk that
8 coal plants face in an environment that is increasingly hostile to them. There can be no doubt
9 that those risks weigh far more heavily on coal plants than on the natural gas units against
10 which they compete across New England. A currently large gap in favor of those other units
11 threatens only to become larger in coming years.

12 Present economics, let alone future risk, show the benefits of securitization of stranded costs
13 represented directly by low economic values versus net book value and by regulatory assets
14 and deferrals, such as the large scrubber costs not being currently recovered. Securitizing
15 stranded costs effectively refinances customer payments of capital costs from the current
16 11% WACC rate for plant and deferral returns, to a securitized debt rate of approximately
17 3%. That 8% differential is worth approximately \$40 million *per year* to customers, or, stated
18 more immediately, \$110,000 *per day*. For every day that the status quo continues, customers
19 will incur that amount, payable to PSNH. Failing to act now to achieve these savings means
20 that each day's economic loss to customers never comes back, even if divestiture happens
21 after the significant delay that Non-Advocate Staff has discussed.

¹ January 1, 2015 net plant balance according to the Eversource discovery response to Non-Advocate Staff 1-172, page 2 provided as Attachment JA-01.

1 **Q. In light of the significant savings available from divestiture and securitizing the**
2 **resulting stranded costs, does it make sense to defer divestiture or to retain PSNH**
3 **ownership?**

4 A. In order for retention of PSNH's generation assets to be in the economic interest of PSNH
5 customers, the economics of PSNH's fleet would have to change far beyond what can be
6 considered realistic. They would have to turn from requiring significant customer subsidy
7 annually, as has been and is currently the case. No credible opinions support scenarios with a
8 reasonable probability of producing such a drastic reversal from the very high costs that the
9 plants have imposed on customers. There simply is no reason to continue to compel
10 customers to lose \$110,000 per day for plants that are uneconomic.

11 **IV. THE UNECONOMIC NATURE OF PSNH'S FLEET**

12 **Q. You have stated that PSNH's fossil plants are uneconomic; please explain the basis for**
13 **your conclusion.**

14 A. The coal plants that form the bulk of the PSNH fleet significantly burden PSNH customers
15 through past capital expenditures (CapEx), driven predominantly by Merrimack scrubber
16 costs, that earn a Commission-approved 11% return. Continuing ownership and operation of
17 those plants compounds the problem for PSNH customers because of two key elements of
18 PSNH's cost structure: (a) disproportionately high fixed operation and management ("Fixed
19 O&M") costs, and (b) high CapEx rates, both of which are consistent with the advanced age
20 of the plants. These two factors proved decisive in the 2013 Staff/Liberty Report's
21 observations about the poor (so bad as to be negative in a number of cases) value that the

1 plants represent for customers in relation to the investment values that drive what customers
2 pay PSNH.²

3 Fixed O&M consists of those operation and maintenance costs incurred whether or not a
4 plant operates on any given day (or very much at all). Primary Fixed O&M components
5 include staffing, materials and supplies, and property taxes, for example. CapEx includes all
6 capital additions made to maintain safety, efficiency, reliability, longevity, and regulatory or
7 environmental compliance.

8 Fixed O&M and CapEx often form a large part of overall costs at a power plant, particularly
9 older, less efficient fossil plants. Fixed O&M for other coal units in the NYISO and ISO-NE
10 regions averages \$25.62 per year per kW, as shown in Exhibit JA-04. However, Fixed O&M
11 for Merrimack runs over 15 percent higher, at \$30 per kW. Fixed O&M for Schiller is far
12 worse. At approximately \$93 per kW, it is close to four times the regional average. The
13 above-average Fixed O&M for PSNH's coal plants (the highest in the region) alone adds
14 about \$28 million per year in customer costs, when compared with regional coal plants, many
15 of which are shutting down because they are also uneconomic.

16 Ongoing CapEx is also burdensome, averaging over \$16 million per year for the PSNH coal
17 units. Fixed O&M and CapEx represent approximately 37% of the overall operating cost for
18 PSNH's coal plants.³

² See Report on Investigation into Market Conditions, Default Service Rate, Generation Ownership and Impacts on the Competitive Electricity Market, June 7, 2013 ("Staff/Liberty Report") in IR 13-020 at <http://www.puc.nh.gov/Regulatory/Docketbk/2013/13-020/LETTERS-MEMOS-TARIFFS/13-020%202013-06-07%20STAFF%20REPORT%20ON%20INVESTIGATION%20INTO%20MARKET%20CONDITIONS.PDF>.

³ Based on SNL Energy 2014 estimates. SNL Energy is a leading subscription information service that provides news, data and research on the electric power industry.

1 These extraordinarily high fixed costs make the PSNH coal plants highly uncompetitive in
2 the market, even before considering the fuel cost advantage that overall makes the region's
3 natural gas plants more market competitive. It is true that PSNH's fossil plants can still beat
4 the market in limited circumstances, primarily on extremely cold winter days, when pipeline
5 constraints produce transient gas price spikes. On these occasions, the plants provide savings
6 when compared with what it would cost to buy energy from the ISO-NE market at those
7 times. However, these conditions do not occur frequently enough to compensate for the far
8 greater number of days that the PSNH plants sit idle, while continuing to incur fixed costs.
9 ES customers have to pay the high Fixed O&M and CapEx costs incurred *every day of the*
10 *year*, whether or not the plants run. The number of hours per year when the coal plants are
11 able to run at significant economic advantage over the market (based purely on variable
12 costs) simply do not wipe out the losses suffered on the many more numerous hours when the
13 plants cannot compete with cheaper market sources of electricity, or when they do run, but at
14 variable costs that are not materially different from the market clearing price. On these latter
15 days, merely covering variable costs provides no offset to fixed operating or capital costs.

16 In sum, there just are not enough occasions when the variable costs of PSNH's fossil plants
17 are far enough below market costs to offset the high fixed costs borne by customers 365 days
18 a year.

19 **Q. What evidence supports your view of the PSNH fleet's lack of economic**
20 **competitiveness?**

21 A. The steadily growing number of shuttered coal plants all across the region shows generally
22 the bleak prospects fossil units like PSNH face in competing in the marketplace. Competition

1 from lower priced natural gas has marginalized, and will continue to threaten remaining coal
2 plants, even those more efficient than the PSNH fossil units.

3 Gas prices, already at levels more than low enough to beat the PSNH fossil units routinely,
4 have continued to trend downward. Mr. Cannata made a peculiar observation at a recent
5 technical session about the inability of shale gas production to survive continuing drops in
6 natural gas prices and declining production from existing rigs. To the contrary, the evolving
7 technology of fracking has continued to bring new ways to extract gas at lower prices. With
8 rig counts falling in the Marcellus production region, total production has still continued to
9 grow. Bringing new rigs into production and maximizing their production has clearly been
10 enhancing the ability to increase volumes and lower production cost. It is pessimistic to
11 conclude that what remains a young and aggressive industry has reached full technological
12 maturity.

13 Coal units also face threats far greater than those of units fired by other prevailing fuels. They
14 face extremely onerous carbon emissions reductions at the beginning of the next decade. This
15 development is compelling, and will make already economically weak units worse.

16 Finally, the PSNH coal units are already the weakest of the survivors. Recent regional
17 shutdowns include coal plants with significantly better efficiencies and lower fixed and
18 variable costs than the PSNH coal plants impose. We performed a review of the PSNH coal-
19 fired plants - Merrimack and Schiller - in order to benchmark them against other regional
20 coal-fired plants. We used SNL Energy's 2014 data to review⁴ four key measures of

⁴ This testimony makes a number of references to SNL Financial LC data. That data contains copyrighted and trade secret material distributed under license from SNL, and is provided for internal use only by those receiving it.

1 efficiency and competitiveness: fuel cost, total dispatch cost, fixed O&M cost, and total
2 O&M cost.

3 The field of power plants we reviewed, in addition to the PSNH plants, included all major
4 ISO-NE coal plants and two NYISO coal plants expected to retire. The only unit in those
5 regions (besides PSNH units) that is not slated for retirement is Bridgeport Harbor.

6 The results of our analysis are compelling. Of the eleven coal units surveyed, the four PSNH
7 units (Merrimack 1 and 2 and Schiller 4 and 6) were the worst performers in *every* category,
8 including both fixed and variable cost components. Exhibit JA-02 shows that Merrimack and
9 Schiller are the worst performers for fuel cost (\$/MWh). Exhibit JA-03 displays that
10 Merrimack and Schiller are the worst performers for total dispatch cost (\$/MWh). Exhibit
11 JA-04 displays that Merrimack and Schiller are the worst performers for fixed O&M
12 (\$/kW/year). Finally, Exhibit JA-05 displays how Merrimack and Schiller are the worst
13 performers for total O&M cost (\$/MWh). To summarize, this data shows that Merrimack and
14 Schiller units perform far worse in every cost category than every other regional coal unit —
15 including those that are being closed.

16 **Q. How do you explain the discrepancy between your findings that PSNH's fossil assets are**
17 **uneconomic and Mr. Cannata's testimony that divestiture would be a detriment to**
18 **customers?**

19 A. Mr. Cannata made a series of invalid value "adjustments" by:

- 20 • Accounting only for the downside of factors that produce a corresponding upside that
21 he did not include (for example, changes in capacity market prices);

- 1 • Making assertions about future market conditions that have no outside support that he
2 could provide; his assertions counter both market experience to date and prevailing
3 views of the future (for example, natural gas prices) without citing any recognized
4 authority; and
- 5 • Relying upon limited personal observation to counter clear and relevant industry
6 technical and operational factors (for example, natural gas well productivity).

7

8 As a result, Mr. Cannata ends up more than \$1 billion away from what the Liberty/Staff and
9 La Capra analyses suggest as the savings that divestiture and securitization would produce.
10 He does so primarily by assuming that the factors that have driven the diseconomy of PSNH
11 plants to date will not only fail to continue in the future, but will substantially reverse.

12

13 **V. ANALYSIS SUPPORTING DIVESTITURE AND SECURITIZATION SAVINGS**

14 **Q. Do you agree with Non-Advocate Staff that the Settling Parties have failed to present a**
15 **valid analysis to support divestiture and securitization under the Settlement**
16 **Agreement?**

17 A. No. It does not require any further analysis to show that: (a) PSNH's plants have been
18 uneconomic, (b) that their retention has already cost customers substantially, even with gas
19 constraints in the region, (c) selling the plants now allows customers to capture whatever
20 value the plants do have, (d) that sale will remove from PSNH customers the future,
21 substantial risks of operation, and (e) securitizing the scrubber costs and any other stranded
22 costs as soon as possible saves customers approximately \$110,000 per day, which cannot be
23 produced under continued PSNH ownership of the plants.

1 There is clear and convincing evidence from which the Commission can conclude that
2 divestiture and securitization as set forth in the Settlement Agreement will benefit customers
3 substantially, and is therefore in the public interest. This conclusion is consistent with both
4 the initial Staff/Liberty report in 2013, the 2014 La Capra and Staff reports issued in Docket
5 IR 13-020, and La Capra’s August 2015 update.⁵ That work is based on sound analysis, not
6 on the unsupported assumptions and flawed analysis that underlie Mr. Cannata’s
7 “adjustments.” As La Capra’s 2015 update confirms, this conclusion remains valid.

8 Non-Advocate Staff’s suggestion that yet another analysis is necessary appears to seek a
9 level of predictive precision that is neither feasible nor necessary. Even the best analysis
10 must rely on expectations about future circumstances that include the performance of various
11 energy markets affecting the cost of energy. Nobody can guarantee forecasts, particularly
12 over the relatively long time periods involved. A demand for a precise answer before moving
13 forward with divestiture is the equivalent of choosing never to divest. Every succeeding
14 analysis that further delays divestiture and securitization will still pose questions about the
15 uncertainty of the future and the need for yet more “updating.”

16
17 **VI. THE “VALUE” OF PSNH PLANTS DURING EXTREME WINTER WEATHER**

18 **Q. You have raised concerns with Mr. Cannata’s “adjustments” to the analysis of**
19 **customer savings. Please explain what concerns you about his “adjustment” based on a**

⁵ See Liberty Report at <http://www.puc.nh.gov/Regulatory/Docketbk/2013/13-020/LETTERS-MEMOS-TARIFFS/13-020%202013-06-07%20STAFF%20REPORT%20ON%20INVESTIGATION%20INTO%20MARKET%20CONDITIONS.PDF>, and Staff/La Capra Report at http://www.puc.nh.gov/Regulatory/Docketbk/2013/13-020/LETTERS-MEMOS-TARIFFS/13-020%202014-04-01%20STAFF%20PRELIMINARY%20STATUS%20RPT_PSNH%20GENERATING%20PLANTS.PDF, and the PUBLIC version of the August 2015 LaCapra Update provided to the parties in October, attached as JA-06.

1 **claimed average annual savings to customers of \$116.6 million during winter price**
2 **spikes.**

3 A. Mr. Cannata’s “adjustment” for winter price spikes unsoundly relied on savings calculations
4 based on a simplistic estimate of the difference between the *variable* cost of running PSNH
5 assets and ISO-NE day-ahead market clearing prices during winter price spikes. Moreover,
6 the information was from an historical period without substantiation that the conditions then
7 are indicative of future circumstances. Even if the circumstances are indicative, this
8 approach does not account for the full cost (*i.e.*, including *fixed* costs) of PSNH’s plants to
9 customers. When asked in Eversource data request 1-46 (Exhibit JA-07) whether Mr.
10 Cannata included fixed costs in his analysis, his response was, “No, I was not formally
11 requested to do so.” Including fixed costs is not an option; it is a necessity.

12 The PSNH fossil-unit fixed costs require customers to pay far more through the year than
13 they gain on the few days when the PSNH plants beat the market by a material amount on a
14 variable cost basis. When the plants are merely nominally competitive with market clearing
15 prices, they do not provide benefits, but continue to lose money because of fixed costs. In
16 other words, when PSNH’s *variable* costs allow it to match or beat market clearing prices,
17 the gap between those costs and prices has to be very substantial to make up for the high
18 *fixed* costs involved.

19 Divestiture will eliminate PSNH customer responsibility for these substantial fixed costs.
20 Contrary to Mr. Cannata’s assertions, customers get a good trade when they give up the
21 benefits of savings on “gas spike” days in return for avoiding the obligation to pay for high
22 fixed costs every day.

1 **Q. Please respond to Mr. Cannata’s concern about the use of monthly, as opposed to daily,**
2 **average natural gas prices.**

3 A. Mr. Cannata has asserted that the use of forecasted prices expressed on a monthly basis fails
4 to account for the particularly high value that the PSNH fossil units provide during those
5 days when natural gas prices experience high spikes. He provided adjustments to reflect that
6 value on such days. His work misses the fact that the analyses he “adjusts” already
7 accounted for spikes. Both the La Capra and Staff/Liberty analyses have incorporated such an
8 accounting.

9 It is correct that the use of average prices does not *uniquely* account for value on days
10 experiencing such spikes. However, the use of average prices does so on an *aggregate* basis.
11 If monthly averages understate value on particularly high gas-cost days, they similarly
12 overstate the value of the units on those days in the month where prices are below the
13 average. This is true in two ways. First, the use of an average price on those days, as opposed
14 to the lower prices that actually apply, permits the PSNH fossil units to appear competitive
15 with the market and thus generate more megawatt hours than they would if a daily natural gas
16 price were used.

17 Second, the use of average prices on the many days of the month when gas prices are below
18 the average for the month increases the gap (calculated for modeling purposes) between
19 market prices and PSNH costs. Therefore, monthly prices also overstate the value that each
20 megawatt hour generated will produce. For example, if average monthly natural gas prices
21 are \$7, the PSNH plants will be credited at that rate, even on days when gas prices are \$3,
22 despite a gap of \$4. Evenhandedness clearly requires that making upward adjustments for the

1 days of the month when gas prices exceed the monthly average requires a companion
2 adjustment to both the PSNH plant megawatt hours generated and the value of those
3 megawatt hours for the days when gas prices are under the average.

4 Third, there simply are no forecasts of gas prices on a daily basis. This has not stopped
5 market participants from using available (monthly) price forecasts and strip purchases made
6 on a monthly basis to make purchase and trading decisions of immense cost magnitude. Mr.
7 Cannata asks for what the market does not provide and for what it does not need when
8 making decisions about value for the future. Thus, there is no valid way to consider the future
9 on the daily basis that Mr. Cannata appears to seek. His alternate route, which looks
10 backward in fact, does not offer a reasonable proxy. He superimposed after-the-fact results
11 from the past (which different market conditions produced). He recognizes in other cases
12 how the future is different from the past in the conditions at issue. Those differences similarly
13 render his use of past results here to model the future inapt.

14 **Q. But does this lack of daily information not, as Mr. Cannata says, miss the fact that the**
15 **PSNH plants, on very high gas cost days, spare customers the exposure to market**
16 **prices?**

17 A. It does not. Mr. Cannata's claim that the use of monthly data misses the effect of prices
18 avoided based on high electric prices on high-gas price days is not an accurate criticism of
19 the asset valuation work that either Staff/Liberty or La Capra have performed. Those
20 valuations considered the generating assets at issue as market participants. Therefore, the
21 analyses underlying them do in fact capture the gross margin (the full value between their
22 costs and market prices) that the assets produce. In other words, by including above average
23 gas cost days in the analysis, and by modeling the revenue the plants would produce on those

1 days, they effect is to reflect the fact that customers get on those days the benefit of the
2 difference between PSNH plant costs and market prices. As those analyses clearly show the
3 PSNH fleet is uneconomic even when that credit is given.

4 **VII. HOW THE EFFECTS OF RISING CAPACITY VALUES HAVE BEEN CONSIDERED**

5 **Q. How do you respond to Mr. Cannata’s claim that load obligation payments were missed**
6 **in estimating pre- and post-divestiture costs?**

7 A. Page 12 of Mr. Cannata’s testimony, beginning at line 10, states, “If PSNH generation is
8 sold, PSNH will still be responsible for Load Obligation Payments either when supplying
9 Default Service to its remaining customers or through payments to a load aggregator in the
10 competitive market. That is, the requirement to make Load Obligation Payments does not
11 leave PSNH with the sale of its generation.” From this starting point, Mr. Cannata calculated
12 a \$206.2 million downward “adjustment” to customer savings. Again, his analysis here took
13 into account only one side of a two-sided factor, rendering his analysis inapt.

14 The same factor that causes PSNH to need to pay for capacity following divestiture (it
15 doesn’t have the plants anymore) will also affect the proceeds it gets from selling the plants.
16 If it is true that PSNH can now expect to pay more when it moves from provider to buyer of
17 capacity, then it must be equally true that those who buy the plants (and so become sellers of
18 capacity) can expect to receive more. These are two sides of the same divestiture coin. His
19 analysis fails to deal with the fact that an expectation of higher load obligation payments by
20 buyers corresponds to the higher prices that will accrue to those who have the capacity to
21 provide it to those who must buy it. If market expectations are for greater capacity payments,
22 then bidders for the PSNH generating assets will value those expectations and consider that

1 value in what they offer to pay for them. All sale proceeds will reduce stranded costs, directly
2 benefitting all customers.

3 A postulation that bidders will hold back the value that things like high capacity prices would
4 produce is not consistent with competitive markets and a robust sale process. Such a
5 postulation does no less than dispute the basis upon which restructuring has occurred
6 throughout New England (*i.e.*, that efficient markets are good for customers). New
7 Hampshire agrees; the Legislature has found that “market forces can now play the principal
8 role in organizing electricity supply for all customers instead of monopoly regulation.”⁶ That
9 policy continues to underlie the statute that brought this matter before the Commission. No
10 basis has been laid for challenging it in this proceeding.

11 In sum, it is wrong to adjust for increased capacity acquisition costs without similarly
12 adjusting for the plant value increase that will drive bids from those who will use the capacity
13 acquired in similar ways.

14 **Q. Do you have an opinion on the potential for the sustained, high capacity payments that**
15 **Mr. Cannata relied on to calculate his \$206.3 million “adjustment B?”**

16 A. There is not a basis for projecting extreme increases in capacity prices. The La Capra 2015
17 update adjusted them for circumstances known at the time. At that time, it was reasonable for
18 them to use the forecasts incorporated into their update. The recent retirement of Pilgrim is
19 not expected to cause a further spike. To the extent it may extend prices recently prevailing, it
20 is worth noting that gas prices have fallen further from the estimates of the La Capra update.

⁶ 1996 N.H. Laws, 129:1, IV, at <http://www.gencourt.state.nh.us/legislation/1996/HB1392.htm>, “AN ACT restructuring the electric utility industry in New Hampshire and establishing a legislative oversight committee.”

1 As that update demonstrates, higher capacity prices and lower natural gas prices have
2 offsetting impacts.

3 We therefore do not see a basis for concluding that conditions now observed would cause a
4 significant impact on the valuations of the units that have been undertaken for two years now.

5 **VIII. THE HARM TO CUSTOMERS FROM DELAYING DIVESTITURE**

6 **Q. Non-Advocate Staff recommends a 5-year delay in divestiture. Do you believe that**
7 **PSNH customers would benefit from such a delay in divestiture and securitization?**

8 A. No. Such a delay would actually result in significant *lost* savings for PSNH customers. We
9 have firm views about plant valuation and stranded costs, from the work we performed with
10 staff in 2013, and through review and comparison of the La Capra work in 2014 and its very
11 recent 2015 update. In addition, we can, if the settlement is approved, refinance through
12 securitization some \$500 million in stranded costs (following divestiture) at 3 percent. As
13 stated previously, that change alone is worth about \$110,000 per day to customers, or \$40
14 million per year. Even if there are no other benefits from shifting to lower cost market rates
15 and avoiding future capital expenditures, a five year delay would result in a loss of
16 approximately \$200 million in avoidable carrying costs of uneconomic assets.

17 Retention of the plants for 5 years would continue the fundamental problem that PSNH's
18 fossil plants are uneconomic, and remain so. It will also leave with customers environmental
19 risks, the operational risks that come from being a relatively small plant operator, and the use
20 of regulatory prudence review (as was true for the Merrimack scrubber and will remain the
21 case without divestiture), as opposed to market forces as the ultimate source of discipline in

1 evaluating further capital investments. If the plants continue to impose on customers over-
2 market costs without the relief that securitization will bring, the persistent gap between
3 PSNH ES rates and those of the other New Hampshire electricity distribution utilities will
4 only grow, as the scrubber costs and deferrals are recovered in rates. That gap has been large
5 and even if all else stays the same it will remain so. Unfortunately, things will not remain the
6 same, as continuing migration by those moving to market rates will cause the PSNH ES rates
7 to increase even more when compared with the market.

8 We also do not share a belief that we will be in a better situation to consider divestiture after
9 additional natural gas pipeline capacity comes to New England. To the contrary, mitigation
10 of current natural gas constraints and the resulting winter wholesale electric market price
11 spikes will further diminish the already insufficient number of occasions during the year
12 when PSNH's fossil units are market competitive. Whatever value the plants have to
13 potential purchasers is likely at its greatest right now. The longer we wait, the longer
14 customers continue to pay PSNH \$110,000 per day, the less the plants are likely to bring
15 when finally divested, and the more customers will pay from any rise in interest rates by the
16 long-delayed time when securitization finally occurs.

17 **Q. Are there any circumstance where delaying divestiture for five years would result in a**
18 **net benefit to PSNH customers?**

19 A. Scenarios that would do so are beyond extreme, given the circumstances. The Staff/Liberty
20 and the La Capra analyses valued the PSNH assets at between \$225M and \$250M.⁷ The

⁷ See Liberty Report at <http://www.puc.nh.gov/Regulatory/Docketbk/2013/13-020/LETTERS-MEMOS-TARIFFS/13-020%202013-06-07%20STAFF%20REPORT%20ON%20INVESTIGATION%20INTO%20MARKET%20CONDITIONS.PDF> and Staff/La Capra Report at <http://www.puc.nh.gov/Regulatory/Docketbk/2013/13-020/LETTERS-MEMOS->

1 Liberty estimate of \$225M was largely driven by the ability to sell the PSNH coal plants
2 (Merrimack and Schiller) for their site value, totaling \$18.8M. In fact, their value from a
3 DCF standpoint (the present value of future cash flows) was actually negative. Under a range
4 of market conditions and operational and cost parameters, continued ownership and operation
5 of the coal plants will produce large losses from a cash flow perspective during the next five
6 year period. Delaying the divestiture by five years will therefore result in a significant loss of
7 value to PSNH customers.

8 The cost of producing electricity from gas-fired facilities typically sets the market clearing
9 price for electricity in New England markets. This pivotal role of natural gas has two
10 implications for the PSNH fleet. First, it determines how much that fleet operates (*i.e.*, the
11 number of hours their variable plant costs will be less than market prices). Second, it
12 influences how much those plants will save (said another way, how much value they will
13 generate) for each megawatt hour they produce. Natural gas prices would have to increase
14 quite dramatically—all other things equal—in order for the value of the coal assets to turn
15 positive. Even were there to be a game-changing natural gas price increase, the plants will
16 still face the value-diminishing consequences of environmental compliance risk that coal
17 plants will continue to encounter.

18 Forecasted natural gas prices fell between the 2013 Staff/Liberty analysis to the 2014 La
19 Capra analysis. They have fallen further in the period leading up to the 2015 La Capra
20 update. They have fallen further still since, and the forward prices actually being paid for
21 natural gas prices for future delivery (these are not forecasts or estimates, but actual,

1 available prices) have fallen as well. Reputable sources of future prices (both actual futures
2 prices and forecasts) project that natural gas prices for power generators in ISO-NE will
3 continue to fall over the next two years and then rise only slightly for the subsequent four
4 years. In fact, the price realized in 2022 is expected to be about the same as today's price for
5 gas in New England, as shown in Exhibit JA-08.

6 **IX. OTHER RISKS AVOIDED BY DIVESTITURE**

7 **Q. What other factors beyond direct customer savings are relevant to the Commission's**
8 **determination of whether divestiture and securitization pursuant to the terms of the**
9 **Settlement Agreement is in the public interest?**

10 A. Non-Advocate Staff also overlooks critical value that customers derive from divestiture in the
11 form of avoided future risk. Under PSNH ownership, customers bear the risk of future capital
12 expenditures, threatened by factors such as environmental regulatory changes, regulatory
13 compliance changes, or unexpected operational costs. The standard that ultimately governs
14 the pricing of PSNH capital additions (regulatory approval) is very different from the one
15 (competitive marketplace pricing) that decides what market participants can charge.
16 Yesterday's scrubber case may well become tomorrow's case to address future large capital
17 costs associated with efforts to keep coal plants running despite the fierce headwinds of
18 increasing regulatory and economic pressures.

19

1 **X. REVIEW OF STAFF PROPOSAL FOR SECURITIZATION WITHOUT DIVESTITURE**

2 **Q. Non-Advocate Staff witness Jay Dudley discussed an alternative to divestiture and**
3 **securitization by using debt issuances to pay for the Merrimack Station scrubber. Do**
4 **you agree that this is a viable alternative to the Settlement Agreement?**

5 A. No. Issuance of traditional debt at the levels Mr. Dudley addressed would not offer a
6 practical alternative, nor is it clear that he would conclude differently, which he seemed to
7 accept at a recent technical session. Such an alternative would fail for a number of reasons:

8 • Under his proposal, the half billion dollars of assets that are currently financed by both
9 equity and debt would be financed by only debt. This would produce an equity ratio far
10 below that considered appropriate by this (or any) commission for setting rates.

11 • The resulting high leverage would create a financing risk well outside those considered
12 acceptable in setting utility capital structure and projecting debt and equity costs in
13 regulatory proceedings.

14 • The approach would effectively place the company in the position of having operational
15 responsibility and risk for assets in which it has zero economic interest (*i.e.*, for which it
16 can at most recover only its actual direct expenses incurred); it is clearly fundamentally
17 bad business practice to reside operational responsibility for major capital assets with an
18 entity that has no potential to earn (even an entity hired to operate someone else's assets
19 would require revenues far exceeding its direct expenses).

20 • In decades of utility industry experience, we have not observed (nor has Non-Advocate
21 Staff, as acknowledged at the technical session) such a “can’t win, but can lose” situation
22 for assets of this magnitude; the long history and strength of the premise that regulation
23 must offer a reasonable opportunity to earn an appropriate return would not appear to
24 support such an approach.

- 1 • Acceptance of this approach raises the question of where its boundaries lie – for example,
2 would it enable a commission to require (or to assume for ratemaking purposes) that all
3 of a utility’s assets could be funded by debt?

4 For these reasons, we know of no situation where a utility has agreed to forego earnings on
5 investment of such magnitude in similar circumstances, or of one where a Commission has
6 successfully ordered a utility to do so. While the decision rests with PSNH, it does not appear
7 reasonable to expect the Company to forego a return of this magnitude, while continuing to
8 maintain operational risk for the plants. As a result, the financing alternative put forth by Mr.
9 Dudley is not viable.

10 **Q. Do agree with Mr. Dudley’s contention that currently low interest rates are irrelevant**
11 **to the Commission’s review of the Settlement Agreement?**

12 A. No. An increase in rates will increase the 3% currently projected as available for securitized
13 utility debt. Every 1/2 of one percent will cost customers \$500,000 per year for every \$100
14 million securitized. We believe that even that first half percent is material for customers who
15 have to fund it.

16

1 **XI. AUCTION DESIGN AND AUCTION MANAGER RETENTION**

2 **Q. Non-Advocate Staff proposed the use of a non-traditional auction design. How does your**
3 **recommendation regarding the retention of an auction manager relate to auction design**
4 **issues?**

5 A. The Commission need not address auction design at this stage. It is far preferable to do so
6 with the advice and counsel of an entity experienced in the conduct of sales of this type, as
7 the Commission did for the divestiture of Seabrook. As we recommended in our direct
8 testimony, the Commission should retain such an entity now to seek their advice on auction
9 design issues. We do not presume approval of the settlement or of divestiture in making this
10 recommendation. However, should the Commission find it in the public interest to divest, it
11 is important to accelerate the auction process, which retaining a manager now can facilitate.
12 If there are design issues, like those raised by Non-Advocate Staff, it is best to leave them to
13 resolution in consultation with the auction manager, who should be entirely independent and
14 operate under Commission direction, through general counsel, as was the case with the
15 Seabrook divestiture.

16 In addition, attempting to address auction design as part of the adjudicative proceeding on
17 whether divestiture and the Settlement Agreement are in the public interest, and without the
18 advice of an expert auction manager, unnecessarily complicates an already complicated
19 proceeding. Development of an auction design is much more suited to a separate, non-
20 adjudicative process through which the Commission can receive input from interested parties
21 (many of whom may not be parties to the instant docket) and an independent expert auction
22 manager.

1 **Q. Non-Advocate Staff witnesses recommend use of an ascending clock auction process to**
2 **effectuate divestiture. Does the history of electric generating asset divestiture in this**
3 **country provide evidence that this type of auction would work for generating plants?**

4 A. No. An ascending-clock approach runs counter to what is now a long history of asset
5 transfers in the electric utility business, beginning with the first wave of divestiture at the end
6 of the last century. Professor Cramton’s unprecedented approach in the circumstances
7 relevant here would abandon the industry standard of firm, best bids based on mark-ups of
8 the contract terms and conditions templates provided by the auction manager. Professor
9 Cramton describes the format as “very much like that of an e-Bay auction” and he observes
10 that bidders “can use information about other firms’ bids.” This approach has never been
11 used in this country for an auction of physical generation assets, despite a history of
12 restructuring that has successfully moved vast amounts of generation from vertically
13 integrated utility to competitive supplier ownership.

14 Therefore, to begin with, there is no reason to suggest the need for novel approaches, let
15 alone one modeled on offerings appealing to the mass market. Non-Advocate Staff at the
16 technical conference suggested the need for ensuring the integrity of the auction process,
17 based on experience with developing democracies. Those conditions simply do not apply in
18 the United States.

19 History also provides no basis for concerns about transparency, fairness, or integrity. To the
20 contrary, as the sale of Seabrook attests, Commission oversight and an already strong set of
21 process controls established in the financial markets resulted in fair and efficient auction
22 process management. We have recommended a similar approach here; *i.e.*, New Hampshire
23 Public Utilities Commission management of the sale process, led, as was true in the case of

1 Seabrook, by the Commission's General Counsel. That oversight process was active and
2 probing, involved regular information to the Commission about sale process design and
3 progress, and included detailed assessments intended to ensure that the sale process was
4 robust, competitive, impartially conducted, subjected to appropriate controls, and, in the final
5 analysis, sufficient to ensure that the best value had been obtained from the marketplace for
6 customers.

7 **Q. Mr. Antonuk, based on your experience and the past history of plant sales, do you have**
8 **other observations about Professor Cramton's proposed approach?**

9 A. Yes. First, participants in this marketplace will find the proposed process foreign. Familiarity
10 and comfort with the process are material contributors to robust bidder participation. They
11 may also find it less likely to preserve the confidentiality of their positions and offerings. I
12 assisted the Commission's General Counsel, who was charged with keeping the Commission
13 informed and with ensuring a robust auction process involving Seabrook. I believe that the
14 trust that potential bidders early and actual bidders later had that their information would be
15 kept confidential was of critical importance in encouraging their participation. One should
16 not expect the field of bidders to be large in this case. The small community of interests
17 makes addressing their concerns about confidentiality important.

18 The size of that community also calls into question the theoretical suitability (if it did not
19 suffer other problems) of the approach recommended by Professor Cramton. As he observed
20 at the technical conference, his approach works best with a large number of participants. This
21 is true because a small body of bidders knowing the highest bid and having to beat it by only
22 a marginal amount might produce a result that is inferior to what best sealed bids might
23 produce in this case. The potential for a small bidding group here thus increases the risk that

1 his approach will leave money on the table. It is not difficult to see the difference in results
2 where one bidder is willing to pay \$100 and all others no more than a maximum of \$50. In an
3 ascending clock auction, his bid of \$51 will win. In a first, best bid auction, offering less than
4 \$100 might cause him to lose at a price he was comfortable paying.

5 Moreover, an ascending clock approach is not the only way to allow for offering price
6 escalation. The first, best-bid approach leaves open the possibility of continuing negotiation
7 with a small group of finalists, should a number of bids prove close in expected value. Thus,
8 the traditional approach to U.S. generation auctions, as the Commission used in the Seabrook
9 divestiture, leaves open the possibility of escalating bids with a selected group of
10 participants, while avoiding the low starting bids that apply in ascending clock auctions.

11 Professor Cramton's approach also will not work because substantial operational,
12 environmental, real estate, interconnection, and other agreements will be required in the sale
13 of PSNH's assets. The energy industry examples he provided for his approach worked from a
14 set agreement to which no exceptions are possible after the "clock" begins to run on bids.
15 Notably, none of those examples involved the sale of hard assets. It is impracticable to make
16 a decision on a single "best" set of agreement terms and conditions here, without first seeing
17 what value adjustments bidders will make based on the risks (e.g., environmental liability,
18 equipment reliability) and the types of contingencies that they include in or exclude from
19 their offerings.

20 **Q. What other concerns do you have with Non-Advocate Staff's proposed auction process?**

21 A. The ascending clock approach is also ill-suited to dealing with the packaging of assets to
22 achieve the highest value for customers. The Cramton approach appears designed for

1 conditions where bidders are pursuing a set of commonly designed “products,” such as
2 capacity or energy, subject only to how much of the same products they are interested in
3 seeking. Here, we are dealing with a grouping of non-identical sale items. Moreover,
4 considering the synergies from operation of multiple facilities, particularly in a small
5 geographical region (which promotes the ability for common staffing), one must consider the
6 problem posed by forcing a unique price for each particular unit. A bidder’s price for each
7 unit may strongly depend on which units that bidder succeeds in winning. How bidders
8 should reflect that synergy when competing against one interested in a single unit is not
9 manifest. The more traditional approach, by contrast, would use post-bid negotiation to get
10 best pricing on asset groups where a bidder on a single unit would appear to offer greater
11 value than one bidding on units as a group.

12 **XII. CONCLUSION**

13 **Q. Having considered Non-Advocate Staff’s testimony in this proceeding, do you stand by**
14 **your testimony that prompt divestiture and securitization as proposed by the**
15 **Settlement Agreement is in the public interest?**

16 A. Yes. All of the available evidence points to the continued and increasingly uneconomic
17 nature of PSNH’s fossil plants, which make the retention of the fleet a net loss for customers
18 as compared to divestiture and securitization.

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

20 A. Yes, it does.