

**Public Service Company of New Hampshire d/b/a Eversource Energy**  
**Determination Regarding PSNH's Generation Assets**  
**1/1/13 - 1/1/17 Rate Base**

**(thousands of dollars)**

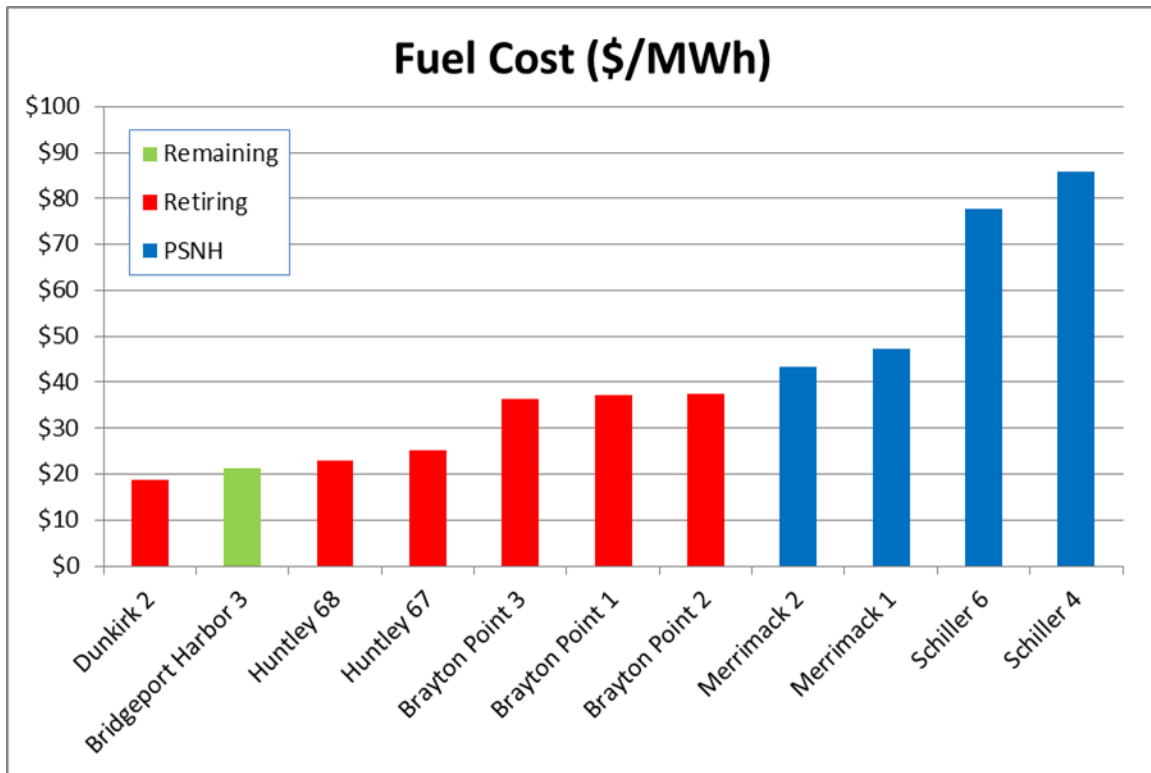
<b>Rate Base</b>	<b>1/1/2013</b>	<b>1/1/2014</b>	<b>1/1/2015</b>	<b>1/1/2016</b>	<b>1/1/2017</b>
Net Plant	698,301	665,940	645,856	651,427	631,308
Working Capital Allowance	10,132	10,384	10,445	11,122	9,332
Fossil Fuel Inventory	44,611	70,440	88,980	71,124	73,197
Materials and Supplies <b>(B)</b>	51,469	51,266	53,110	57,162	55,216
Prepayments - Insurance / RGGI <b>(A)</b>	892	968	744	1,061	1,499
Deferred Taxes <b>(A)</b>	(52,625)	(72,663)	(129,189)	(133,413)	(154,593)
Other Regulatory Obligations <b>(B)</b>	(16,913)	(11,116)	(14,130)	(15,713)	(33,665)
<b>Total Rate Base</b>	<b>735,867</b>	<b>715,219</b>	<b>655,816</b>	<b>642,770</b>	<b>582,294</b>

**(A)** This amount cannot be identified by specific facility, therefore no detail was provided.

**(B)** This amount is comprised of multiple items, some of which cannot be identified by specific facility. As such, detail was not provided for this item.

Amounts shown above may not add due to rounding.

### Attachment JL-01: Coal Unit Benchmark—Fuel Cost



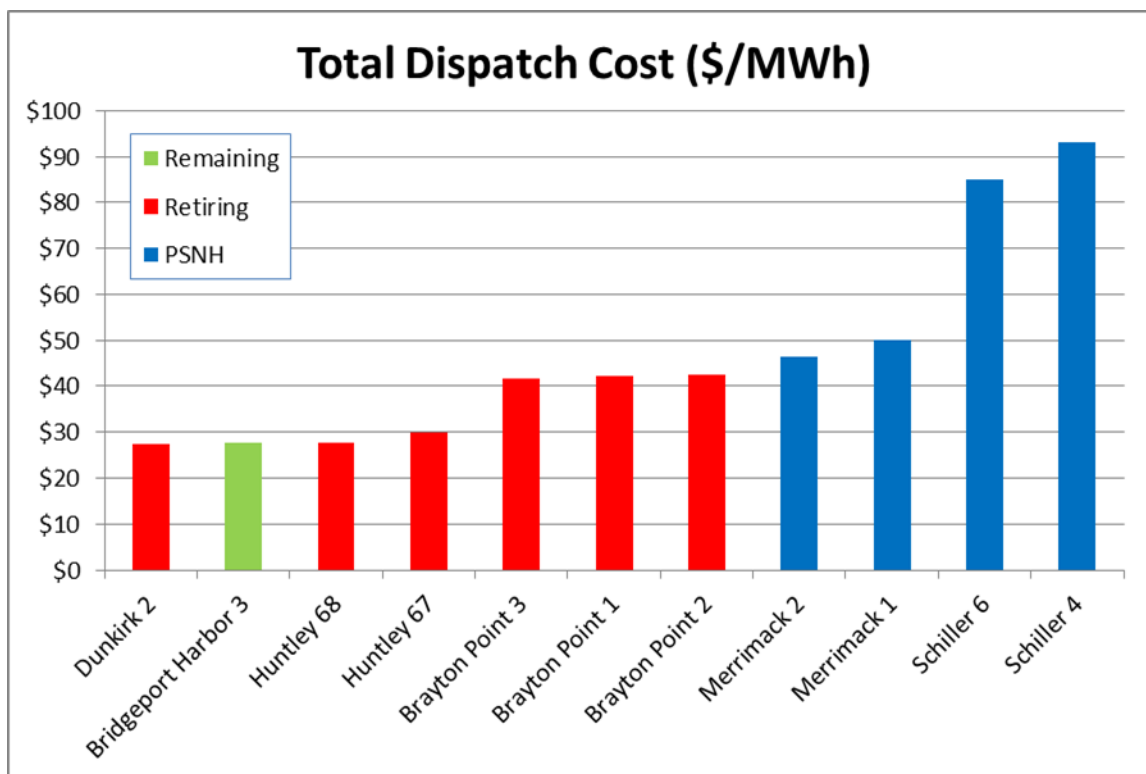
**Source:**

SNL Energy (Power Plant Briefing Books, Generation Supply Curve 2014).

**Notes:**

Fuel cost is the estimated variable fuel cost in \$/MWh based on commodity cost and unit heat rate.

### Attachment JL-02: Coal Unit Benchmark—Total Dispatch Cost



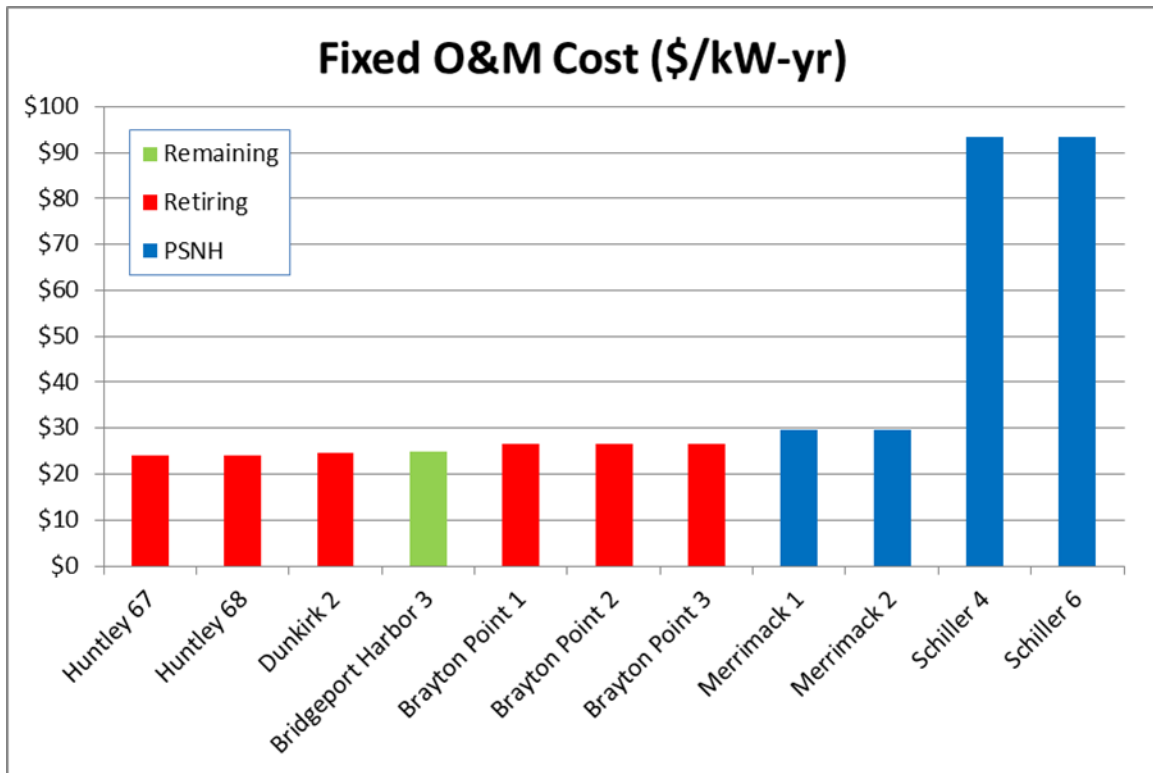
**Source:**

SNL Energy (Power Plant Briefing Books, Generation Supply Curve 2014).

**Notes:**

Total dispatch cost is the sum of the estimated variable fuel cost in \$/MWh and the estimated non-fuel variable O&M cost in \$/MWh.

**Attachment JL-03: Coal Unit Benchmark—Fixed O&M**



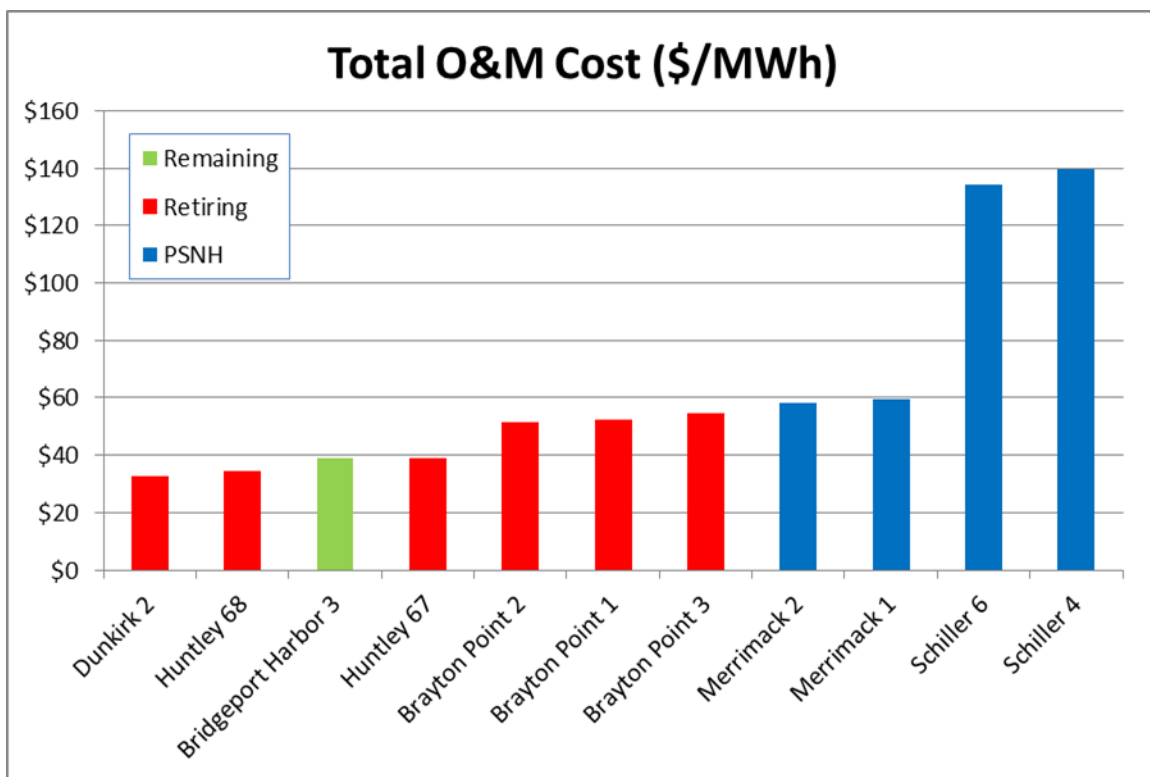
**Source:**

SNL Energy (Power Plant Briefing Books, Generation Supply Curve 2014).

**Notes:**

Fixed O&M cost is the estimated fixed operation and maintenance cost for each unit, in \$ per kW-year.

#### Attachment JL-04: Coal Unit Benchmark—Total O&M



**Source:**

SNL Energy (Power Plant Briefing Books, Generation Supply Curve 2014).

**Notes:**

Total O&M is the sum of all fuel expenses, non-fuel variable O&M expenses, and fixed O&M expenses divided into total unit MWh output.

*La Capra Associates*

# PSNH GENERATION ASSET AND PPA VALUATION REPORT

## AUGUST 2015 UPDATE

*PUBLIC EXECUTIVE SUMMARY VERSION*

*PREPARED FOR*

**New Hampshire  
Public Utilities Commission**

*PREPARED BY*

**La Capra Associates, Inc.**

One Washington Mall, 9<sup>th</sup> Floor  
Boston, MA 02108

TECHNICAL REPORT

August 17, 2015

PSNH GENERATION ASSET AND PPA  
VALUATION REPORT  
AUGUST 2015 UPDATE

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DRAFT

August 17, 2015

## 1. PUBLIC EXECUTIVE SUMMARY

In 2013, La Capra Associates, Inc. (La Capra Associates) and ESS Group, Inc. (ESS) were retained by the New Hampshire Public Utilities Commission (NHPUC) to conduct an economic valuation of the fossil, hydro and biomass generating assets of Public Service of New Hampshire (PSNH) as well as the market value of the Purchased Power Agreements (PPAs) with the Lempster Wind and Burgess BioPower facilities. The valuation was part of NHPUC Docket IR 13-020, "Investigation into Market Conditions Affecting PSNH and its Default Service Customers and the Impact of PSNH's Ownership of Generation on the Competitive Electric Market." ESS reviewed the environmental issues associated with the assets owned by PSNH. La Capra Associates performed studies to determine the economic value of these assets. On March 31, 2014, La Capra Associates issued a report describing the results of its economic valuation.

In early July 2015, the NHPUC approached La Capra Associates to discuss whether changes in market conditions could impact the valuations provided in our March 31, 2014 report. Since that report was issued, two significant market changes have occurred. Due to changes in existing generation and market rule revisions, capacity prices in recent ISO-New England ("ISO-NE") Forward Capacity Market ("FCM") auctions cleared at levels that were higher than previously forecast. Also, prices for natural gas delivered to the ISO-NE control area have declined. All else being equal, higher capacity prices would increase the value of the PSNH assets and PPAs, while lower natural gas prices, which are the prime driver behind regional electric energy prices, would decrease their value. The NHPUC requested that La Capra Associates examine the impact of these market changes on the conclusions reached in our March 31, 2014 report. This report provides the results of that analysis.

Table 1 below provides a comparison of the original and updated valuation for PSNH's generation fleet. As shown in this table the values in our updates assessment have generally declined from the values in our original study, with the notable exception of Newington. This is due to the decline in forecasted natural gas prices having a larger impact than did the increases in forecasted capacity prices.



August 17, 2015

Table 1: Summary of Original and Updated PSNH Generation Assets Valuation

Plant/Unit	Original Reconciled Value	Updated Reconciled Value
<b>Fossil Plants</b>		
Merrimack Station	\$10	\$10
Schiller Station	\$5	\$5
Newington	\$90	\$130
<b>Combustion Turbines</b>		
Lost Nation	\$0	\$0
White Lake	\$0	\$0
<b>Hydroelectric Units</b>		
Ayers Island	\$14.5	\$10.9
Canaan	\$2.5	\$2.0
Gorham	\$3.5	\$2.5
Eastman Falls	\$5.5	\$4.9
Smith	\$47.0	\$36.0
Merrimack River Project (Amoskeag, Garvins and Hooksett)	\$45.0	\$29.7
Jackman	\$2.0	\$1.4
<b>All Hydro</b>	<b>\$120.0</b>	<b>\$88.1</b>
<b>Total PSNH Fleet<sup>1</sup></b>	<b>\$225</b>	<b>\$235</b>

Table 2 below provides a comparison of the original and updated valuation for PSNH's PPAs. As shown in this table the updated values for the PPAs have also declined for the same reason stated above.

<sup>1</sup> Does not include PSNH minority ownership share in Wyman Station. Numbers may not add due to rounding.

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Table 2: Original and Updated Market Valuation of PPAs

	Million 2014\$	
	Original Valuation	Updated Valuation
Burgess BioPower PPA	(\$125)	(\$131)
Lempster Wind PPA	\$5.0	\$0

We believe that these updated valuation results represent a reasonable assessment of the impact of the market changes since our original study.

STATE OF NEW HAMPSHIRE  
PUBLIC UTILITIES COMMISSION

DOCKET NO. DE 14-238

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

Date Request Received: 10/2/15

Date of Response: 10/16/15

Request No. Eversource 1-46

Witness: Michael D. Cannata

REQUEST:

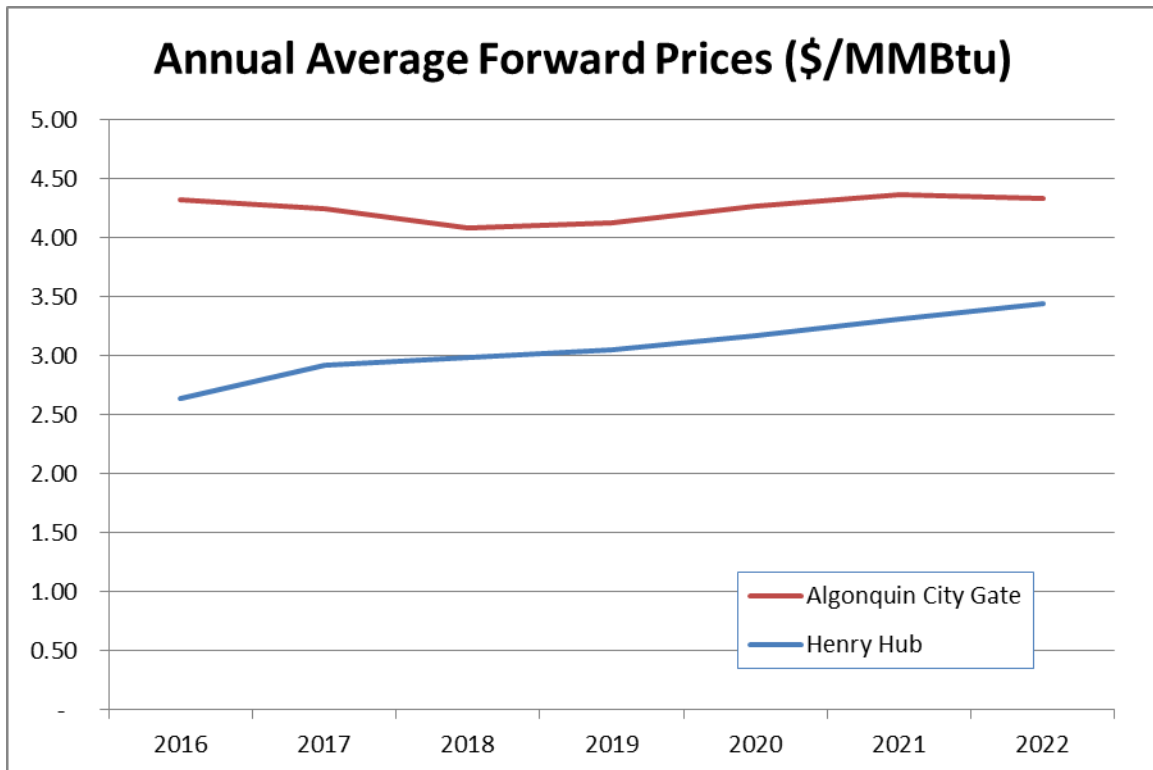
Did the witness evaluate how the total costs of capacity in Table 1 compare to the current fixed costs of O&M, depreciation, payroll taxes, property taxes, and return associated with PSNH owning Generation? If yes, how do those costs compare?

RESPONSE:

No, I was not formally requested to do so. Non-Advocate Staff requested this exact information from PSNH to evaluate the costs of PSNH owned generation, but PSNH responded that they no longer kept any forecast beyond 2016. Where the sale of generation was assumed to take place on January 1, 2017, the data of 2015 and 2016 supplied by PSNH was not of value knowing that the maintenance and capital replacements schedules were constantly in flux due to reduced duty operation.

I note that Newington went through this same budget change and resulted in a \$500 thousand capital budget for the last few years due to reduced operational demands and has been able to live within that budget. I believe that Merrimack Station has not yet bottomed out on their ability to reduce capital and maintenance budgets as they have entered this cycle later than Newington Station.

**Attachment JL-05: Forward Natural Gas Prices (Annual Average)**



**Source:**

SNL Energy (Energy Markets, Natural Gas Summary). OTC Global Holdings prices for Henry Hub and Algonquin City Gates as of 11/13/15.

**Notes:**

Prices shown are the annual averages of monthly forwards.