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BEFORE THE STATE OF NEW HAMPSHIRE

PUBLIC UTILITIES COMMISSION

In the matter of:)
DE 11-250)
Public Service Company of New Hampshire)
Investigation of Merrimack Station Scrubber Project and Cost Recovery)

DE 14-238)
Public Service Company of New Hampshire)
Determination Regarding PSNH' Generation Assets)

Direct Prefiled Testimony
Redacted in Support of Litigation Settlement
(Redacted Testimony Indicated in Gray Highlighting)

Of

James Brennan
Finance Director

On behalf of
The New Hampshire Office of the Consumer Advocate

Dated: July 17, 2015

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

A. My name is Jim Brennan. I am the Finance Director at the New Hampshire Office of the Consumer Advocate (OCA). My business address is 21 South Fruit Street, Suite 18, Concord, New Hampshire.

Q. Please summarize your educational background and work experience.

A. I graduated in 1978 from Saint Bonaventure with a Bachelor of Science degree in Finance. In 1980, I graduated from Syracuse University with an MBA. In 1981, I completed a nine month JP Morgan Chase (formerly Chemical Bank) MBA Management Training Program. I have completed courses in business, finance, software development, electric utility regulation, regulatory finance and accounting, and Smart Grid.

In my present position at the OCA I perform economic and financial analysis of utility filings across all industries, draft discovery and testimony, and provide guidance on financial policy and regulatory issues.

My business career began in banking as First Vice President at Chemical Bank, 1980-1989, with responsibilities as analyst, credit department manager, account relationships, and course designer and instructor of Risk Assessment training. I have experience managing business and technology operations. At TD Waterhouse Securities, 1995-2001, I ran the third largest brokerage statement operation on Wall Street during a period of 400% growth with responsibilities for budget, operations, Information Technology data processing and New York

Stock Exchange Compliance. Waterhouse's statement was awarded #1 ranking by Smart Money during my assignment. I have experience in IT project management and software design. Experience includes: implementation of paperless technology in Waterhouse Security National Investor Clearing Corporation stock clearing operation (2000); managing launch of an eServices web site providing on-line secure access of brokerage statements to 2.5 million Waterhouse clients (2001); designing Microsoft.NET and SQL Server based software systems for Mathematica Policy Research 2003-2006; directing design testing and launch of cloud based Microsoft Customer Relationship Management (CRM) applications for Southern New Hampshire University (2012-2013). As an Adjunct Instructor I have taught courses in Corporate Finance, Microsoft applications and Microsoft C# programming language.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain why the Office of the Consumer Advocate supports the 2015 Settlement Agreement including generation divesture from the residential ratepayer perspective. My testimony is organized into three sections:

I. Existing issues and risks facing Eversource (PSNH) residential default energy service (ES) customers today in the absence of the Settlement Agreement;

II. How the 2015 Settlement Agreement addresses or mitigates the existing risks outlined and review of any new risks introduced should the settlement be approved;

III. Why the OCA supports the Settlement Agreement and why I believe that it fairly and appropriately addresses the risks described in sections I and II;

SECTION I: Existing issues

Q. What primary issues and risks face PSNH ES rate payers?

A. The viability of the PSNH ES rate as a safe default option as currently structured for residential ratepayers is uncertain. Since 2009, systemic factors have made the PSNH ES rate uncompetitive in comparison to market based competitive ES rates charged by the other utilities in New Hampshire. This is referred to as "the PSNH ES above market gap" or "gap" in my testimony. Under retail competition approximately half of PSNH energy sales have been lost to competitive suppliers as customers seek more competitive rates. A confluence of three major events created this gap and has resulted in risks and increasing costs being borne by the residential default ES ratepayers. These risks act in concert with each other and under the status quo could lead to widening the gap and causing a future rate crisis.

Q. What are the risks that create the PSNH ES above market gap and future uncertainty?

A. The risks are:

1. Competition risk and its allocation;
2. Costs of uncompetitive generation assets;
3. Declining PSNH ES sales;

4. Future risks of owning coal generation – which are escalating in severity;

There is strong likelyhood that these risks, which have occurred historically, will continue in the future.

Q. What events cause these risks and allocates them exclusively to default ES rate customers?

A. Three events acting in concert have made ES customers more vulnerable to the inherent risks of PSNH owning legacy coal fired electric generation assets. Coal fired electric generation accounts for major portions of PSNH generation costs and are a key driver of PSNH's gap. These events are:

1. New Hampshire electricity market restructuring including: wholesale deregulation, retail deregulation, and PSNH's hybrid situation[1] ;
2. PSNH's $422 million scrubber investment in Merrimack 1 and 2;
3. Declining natural gas prices.

These events have: a)directly led to PSNH's decline in competitiveness; b) added to ES cost increases; and c) led to profit subsizidation of excess above market capacity by residential default ES customers. To address these conditions the OCA supports the proposed Settlement Agreement over the alternatives to it.

Q. How large is the gap between PSNH's ES rate and the competitive rate used by other utilities?

A. Below is Figure 1 from the Liberty Staff Report [2] of New Hampshire Default Services Rates from April 2004 to April 2013 for all electric utilities in New

[1] NHPUC, DE 13-020, Order of Notice (January 18, 2013),pg.4

Hampshire – PSNH, Unitil (UES), Liberty Utilities Granite State Electric Corp (GSEC), and the New Hampshire Elecrtric Cooperative (NHEC).

Figure 1: **New Hampshire Default Service Rates April 2004 – April 2013**

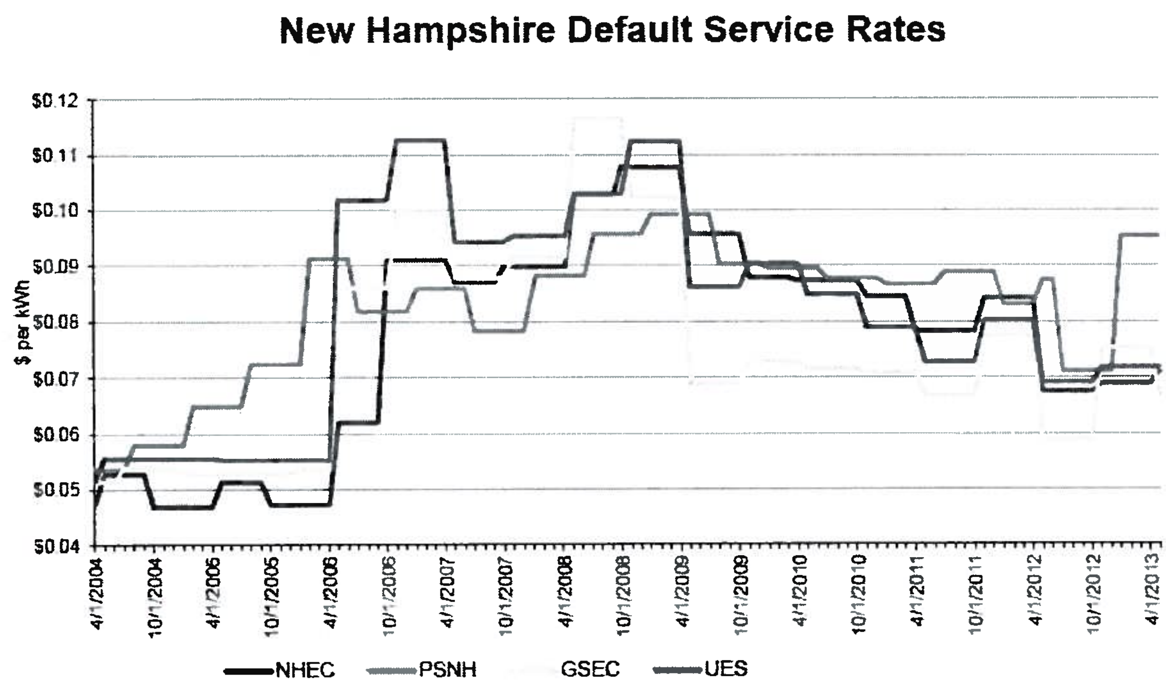


Figure 1 shows that since 2009 PSNH ES rate exceeds all other rates of the other utilities.

Q. Is PSNH's above market gap expected to continue?

A. Yes. Vulnerabilities to competition, cost of excess capacity, sensitivity to declining sales, and the risks of owning coal fired generation, if not eliminated or mitigated, are expected to result in PSNH ES rates remaining higher than market prices over time. The La Capra Associates Staff Report[3] (La Capra Report) forecasts PSNH ES rate will be 3.2 cents to 3.7 cents above the

[2] NHPUC DE 13-020, Liberty Staff Report, June 7, 2013
[3] NHPUC DE 13-020, La Capra Staff Report, April 1, 2014

competitive market rate through 2021 assuming PSNH receives full recovery of all scrubber costs. The La Capra Report precedes winter price spikes of 2013 and 2014. The long term impact of these two winter pricing events is discussed in other testimony and is not included in this forecast of PSNH ES rates status quo.

Q. Is the PSNH ES rate calculated the same way as the competitive ES rate used by the other utilities in the default service diagram above?

A. No. PSNH's ES calculation method is different than the ES rate setting methodology of UES, GSEC, and the NHEC. New Hampshire law requires the PSNH default ES rate to include costs of all of the generation plants owned by PSNH. It states, "The price of such default service shall be PSNH's actual, prudent and reasonable costs of providing such power, as approved by the commission". RSA 369-B:3, IV(b)(1)(A).

Q. Please explain how PSNH implements this directive.

A. The Commission has referred to PSNH as being in a "hybrid situation" meaning that it meets ES load with both owned generation and supplemental market and bilateral purchases. As a result the PSNH ES rate calculation model includes two non-energy cost components that do not exist for the other electric utilities in New Hampshire.

Q. Please illustrate both ES calculation methods?

A. Below is Table 1 Comparison of Energy Service Calculation Models

Table #1
Comparison of Energy Service Calculation Models

	row	a PSNH ES Cost Model (3 components)	b Competitive ES Model (1 component)	c PSNH above market gap
Variable	1	(a) Energy purchased (b) Energy generated	Energy purchased	
Fixed	2	O&M Costs		
Fixed	3	Return costs		
	4	PSNH ES Costs (rows 1+2+3)	Competitive ES Costs (row 1a)	
	5	Default Service Sales kWh	Default Service Sales kWh	
	6	PSNH ES Rate (rows 4 ÷ 5)	Competitive ES Rate (rows 4 ÷ 5)	gap = col B-A

Component definitions:
1 Energy: costs to acquire energy including capacity, environmental and miscellaneous;
2 O&M costs: operation & maintenance, depreciation, tax expenses related to PSNH generation;
3 Return costs: debt and equity costs related to PSNH generation;

Table 1 shows a side by side comparison of basic rate architectures. The PSNH model is column A and the competitive market rate model is column B. It illustrates the gap which is the difference in rates, shown in the bottom row. Both models have an energy component but PSNH's energy component is calculated differently than that of the other New Hampshire utilities. PSNH has two additionl components that recover its generation costs. These components are discussed below.

Energy (row1): The energy component is a variable cost that increases and decreases directly with retail kWh sales volume (row 5). This component represents the cost of acquiring energy (including various capacity, regulatory and other charges) to meet the demand (load) of default ES customers. Energy for PSNH ES customers is sourced differently because PSNH generates a portion of it's load (row 1b) with owned generation while the other utilities purchase all energy in the competitive marketplace.

Operational & Maintenance (O&M) fixed costs(row 2): The fixed costs of PSNH owned generation are O&M, depreciation and taxes. Unlike variable energy costs, fixed costs do not decline with kWh sales volume decreases. Fixed costs are recovered according to traditional regulatory cost of service (COS) rate making principles which are reviewed in Commission proceedings. The 2012 $422 million scrubber investment added to the Merrimack coal fired plant increases this component of PSNH ES rates.

Capital Return Costs (row 3): Return costs are the amounts paid to shareholders based on PSNH generation assets included in rate base. Ratepayers pay PSNH's 9.81% allowed return on equity on net book value generation assets in rate base. Similar to fixed costs, return costs do not decline when sales decline. The 2012 $422 million scrubber investment increases this component[4] by increasing the rate base and therefore increasing the return dollars to shareholders. It is important to note that all of those costs, including PSNH's return, are reconciling.

Q. Please summarize the first risk – the impact on residential rates of competition risk.

A. For significant portions of the year PSNH's coal fired electric generation is uncompetitive in the deregulated wholesale energy market due to the presence of newer, lower cost merchant generators. Their coal fired generation runs economically as a winter cold weather peaking plant. Merrimack however was designed to run as a year round base load plant not as a cold weather peaking plant. As a result PSNH owns increasing levels of expensive excess generation

[4] NHPUC DE 11-250, Chung Testimony, EHC-2, July 17,2015, bates 708

capacity. PSNH shareholders are isolated from competition risks because all generation costs are recovered through the fixed and capital components in ES. Conversely the risks of competition are allocated to default ES ratepayers who pay 100% of all prudent generating costs, including equity return.

Q. How is the competitiveness of PSNH generation measured?

A. In my testimony PSNH's capacity factor is used as a measure of competitiveness in the wholesale energy market. PSNH sells energy into the deregulated wholesale energy market competing against unregulated merchant gas fired electric generators. When PSNH generation assets are running at a competitive price it generates and sells energy into the market. The more frequently PSNH bids are competitive the more its generation assets may be called on to generate energy, and its capacity factor rises. Conversely when PSNH is not competitive and it chooses not to self-dispatch (including uneconomic runs), the quantity of energy generated falls, and its capacity factor declines. Low capacity factor indicates idle plant and excess capacity which ratepayers pay the full carrying costs for, regardless of how often they run.

Q. Based on plant capacity factor, is PSNH's Merrimack coal fired plant competitive?

A. No. Merrimack's coal fired generation is increasingly uncompetitive and uneconomic. PSNH has provided historical capacity factors in graph format[5]. Graph data was converted into numeric format[6] and is used in calculations

[5] NHPUC DE 14-120, Smagula Testimony, WHS-3, May 1, 2014, bates 000100 (JJB-1).
[6] Merrimack Capacity Factors 1993-2013 (JJB-2)

contained in Table #2 below "Capacity Factor Measurements(Merrimack 20 year period)". Table 2 shows Merrimack's competitiveness is declining.

Table #2 Capacity Factor Measurements (Merrimack 20 year period)		
CF	Period	Source
73%	Historical 20 year average capacity factor	JJB-1
69%	Historical 10 year average capacity factor	JJB-1
62%	Historical 7 year average capacity factor	JJB-1
42%	Historical 3 year average capacity factor	JJB-1
36%	2013 capacity factor	JJB-1

Based on calculated average capacity factors Merrimack Station specifically has significant excess capacity.

Q. How does competition risk effect residential ratepayers?

A. First, PSNH's uncompetitiveness leads to excess capacity. As discussed below excess capacity has costs paid by residential rate payers who do not migrate. While ES customers receive the benefit of capacity revenues from PSNH generation, these benefits may diminish as newer capacity comes on line. Second, PSNH's uncompetitiveness has triggered customer migration which increases rates as is discussed below in risk #3 Declining energy service sales.

Q. Please summarize risk #2: Cost of PSNH excess generating capacity.

A. The costs of excess capacity are the fixed O&M costs and return costs paid on excess generation capacity. These costs are embedded in the PSNH ES rate. Similar to an airline that on average fills 35 of 100 seats with paying customers, there are fixed costs associated with the 65 empty seats on each flight. While both are unavoidable (you can't run part of Merrimack 1 or fly part of a plane) there are costs to owning more capacity than otherwise needed. PSNH default ES ratepayers pay those costs whether or not the plant runs. In addition, the scrubber increased ES costs significantly with no associated increase in plant utilization.

Q. Please show the costs of generation included in PSNH ES before and after the scrubber event.

A. Below is Table 3 "Trend Analysis PSNH 2011-2013". Costs data in rows 1-5 is taken from PSNH filings. Capacity factors in row 6 are from Exhibit JJB-1. Row 8 migration is from the Liberty Staff Report[7].

Table #3
Trend Analysis PSNH 2009-2013
1) Total Energy Service Costs, 2) Competitiveness, 3) Retail Sales
$000's

PSNH ES Component		DE 10-121 2009[I]		DE 11-094 2010[II]		DE 12-116 2011[III]		DE 13-108 2012[IV]		DE 14-120 2013[V]	
row	ES Costs:										
1	Energy (variable)	$ 472,944	73%	$ 314,162	65%	$ 259,150	58%	$ 192,659	48%	$169,478	45%
2	Operations (fixed)	$ 131,969	20%	$ 130,998	27%	$ 139,686	31%	$ 127,261	32%	$ 128,921	34%
3	Return (fixed)	$ 42,838	7%	$ 41,429	9%	$ 51,079	11%	$ 82,727	21%	$ 80,715	21%
4	Total ES cost (rows1+2+3)	$ 647,751	100%	$ 486,589	100%	$ 449,915	100%	$ 402,647	100%	$ 379,114	100%
5	Non-energy cost (rows2+3)	$ 174,807	27%	$ 172,427	35%	$ 190,765	42%	$ 209,988	52%	$ 209,636	55%
	Competitiveness:										
6	Capacity Factor	71%		68%		59%		34%		36%	
	Sales:										
7	Retail MWH sales	6,290,761		5,419,726		5,091,947		4,600,990		3,772,661	
8	Migrated Customers[VI]			10,000		10,000		40,000+		65,000+	
9	% Sales lost (approx.)			6%		6%		26%		40%+	

Component definitions:
1 Energy: costs to acquire energy including capacity, environmental and miscellaneous
2 Operations: O&M fixed, depreciation, taxes (generation related)
3 Return: debt and equity costs (generation related)

[I] NHPUC DE 10-121, Baumann testimony, April 30,2010, attachment RAB-3(JJB-3)
[II] NHPUC DE 11-094,Baumann testimony, April 2, 2011, attachment RAB-3 (JJB-4)
[III] NHPUC DE 12-116, Baumann testimony, May 1, 2012, attachment RAB-3 (JJB-5)
[IV] NHPUC DE 13-108, Shelnitz testimony, May 9, 2013, attachment MLS-3 (JJB-6)
[V] NHPUC DE 14-120, Shelnitz testimony, Mar 1, 2014, attachment MLS-3 (JJB-7)
[VI] Migration data for 2010-2013 taken from NHPUC DE 13-020 Liberty Staff Report.

[7] NHPUC,DE 13-020, Liberty Staff Report, June 7, 2013

Since 2009 the non-energy components have risen while sales declined. The scrubber impact started in 2012. The first 5 rows contain cost data. Rows 1-3 show the three components of PSNH ES costs: Energy; Operational fixed; and Return. Row 4 is the total ES cost. Row 5 reflects the non-energy cost components (Operational fixed + return).

Driven by increasing scrubber costs, over half of the PSNH ES rate is fixed non-energy costs (row 5). For 2013 the non-energy components (combined fixed cost component and the capital cost component) total $209 million (row 5) representing over half (55%) of total PSNH ES costs. There has been a steady upward trend in non-energy costs since the 2009 level of $175 million or 27% of total PSNH ES costs. The costs increase reflects the effect of doubling the capital cost component (row 3). Capital costs increased from $41 million in 2010 to $80 million in 2013 primarily due to the addition of the scrubber in rate base. Specifically PSNH projected a $32 million scrubber return on rate base[8] as of 2014. High levels of non-energy scrubber costs will continue going forward.

Q. What is the scrubber's impact on the PSNH ES rate?

A. The scrubber accounts for a significant portion of the projected 3.2 cent/kWh PSNH over market gap shown in the La Capra Report. PSNH calculates[9] the all in cost of scrubber operating costs, return costs and recovery of earnings deferrals at 1.85 cents/kWh. As of today only the .98 cents temporary rate is included in PSNH ES rate. The temporary rate does not recover all return costs

[8] NHPUC DE 11-250, Chung Testimony July 11, 2014, EHC-1,bates 000708
[9] ID

(table 3 row 3) and deferrals have accrued since 2012. These deferrals now exceed $100 million and will be recovered through future ES rates. The scrubber will further increase PSNH ES rates once fully added to the revenue requirement in 2016.

Q. Please summarize risk #3 Declining energy service sales.

A. Unlike the competitive ES model used by the other New Hampshire utilities, PSNH's rates are sensitive to variability in kWh sales volume. PSNH's total ES costs do not vary 100% directly with kWh energy service sales due to the significant amount of non-variable costs in the calculation, (refer to Table 1 row 2 and 3.) Table 3 Trend Analysis shows erosion of PSNH retail sales (row 7). Recent 2013 and 2014 winter spikes led to reverse migration in cold winter months. This temporarily lowered the migration rate to around 38%[10] during the winter before returning to higher levels around 50%[11] for the remaining year. The non-energy fixed costs included in the PSNH ES result in higher ES rates when sales decline.

Q. Have actual non-energy costs increased as PSNH's retails sales have declined historically?

A. Yes. Table 3 shows that fixed non-energy components (row 5) have increased $35 million or 20% between 2009 and 2013 while MWH retail sales (row 7) have declined 40% over the same period. Higher ES costs are allocated on a lower retail sales MWH base representing fewer residential customers (row 8).

[10] PSNH Migration Report 1st quarter 2015 (JJB-9)
[11] PSNH Migration Report 2nd quarter 2015 (JJB-10)

Referencing Table # 1 Comparison of ES models, the numerator is increasing while the denominator is decreasing, mathematically driving rates upward.

Q. Are the negative effects of costs, capacity and sales erosion expected to continue?

A. Yes. Return costs will remain high due to the rate base increase in 2012. Merrimack capacity factor for 2015 is projected at 38%-40%.[12] Migration levels based on the 2nd quarter June 2015 quarterly migration report are averaging 52% with 100,000 customers migrated to competitive suppliers.

Q. Please summarize risk #4 Uncertainties of future risks of owning coal generation?

A. Merrimack Station was built in the 1960's. It was designed as a base load coal fired power generation plant. It is nearing the end of its life cycle of economic use. Maintenance or upgrade expenses, environmental mandates, and increased competition in wholesale and retail markets, can create new costs and increases in generation rate base. This results in increased O&M costs and return costs which are included in ES costs. These increases result in higher rates likely causing declining sales as customers migrate to competitive suppliers. This scenario has occurred in the past and therefore the probability of future events increasing PSNH ES rates is in the realm of probability. These unknown future events create uncertainty as to the future of PSNH default ES rates.

Q. What is your assessment of the existing cost based PSNH ES model?

A. Potentially unsustainable risks and costs are unfairly allocated to those customers who choose PSNH default service rather than migrate to competitive

[12] NHPUC DE 14-235 Response to Staff 1-8 PSNH response (JJB-8)

suppliers. Over 85% of these default customers are residential as of June 2015[13]. The fixed O&M and capital components of PSNH ES place rising costs onto a declining base of mostly residential ratepayers who now subsidize PSNH profits on uneconomic assets. In recent years the capital component has risen dramatically due to enormous increases in plant at Merrimack. Going forward ratepayers will pay PSNH's 9.81% return on $600+ million net book value plant[14] included in rate base in 2017 that is increasingly not competitive. The architecture of the PSNH ES calculation model leaves default service customers (not PSNH shareholders) vulnerable to risks of competition, cost of excess capacity, sales declines, and coal plant ownership. These risks have potential spiraling effects that could jeopordize the viability of PSNH default ES rate for the 325,000+ [15]residential customers that do not migrate to competive suppliers. For low income and fixed income customers, this risk is particularly burdensome. The severity level of these risks is high. Based on historical data, the probability of the occurrence of these four risks going forward is high. The status quo option of continuing with current design would risk harm to default ES residential customers.

SECTION II: Review of the Settlement Agreement

Q. Summarize the impact of the Settlement Agreement on default ES rates paid by residential rate payers.

[13] PSNH Migration Report 2015 Q2 (JJB-10)
[14] NHPUC DE 14-238 Chung Testimony July 6, 2015 EHC-1, bates 83
[15] PSNH Migration Report 2015 Q2 (JJB-10)

A. Under the Settlement Agreement the lower ES costs result in forecasted customer savings of $378 million[16] through 2021 when compared to the status quo rates projected by the La Capra Report. The Settlement Agreement allows the PSNH ES rate to move toward a market based rate. Certain significant existing risks and costs of PSNH's owned generation are removed from residential and other ES ratepayers. Below is a summary of impacts of the Settlement Agreement:

1. Certain existing risks are eliminated:
   - Competition (risk #1);
   - Costs of excess capacity (risk #2);
   - Ownership coal plant/environment (risk #4)
2. Another existing risk is significantly mitigated
   - Sensitivity to sales decline (risk #3);
3. A new risk is added - stranded costs associated with divesting;
4. The size of the gap between PSNH ES rate and the market rate is smaller and is eliminated over a 15 year period[17].
5. The PSNH ES calculation model changes:
   - O&M costs and return costs components are eliminated;
   - New stranded cost component[18] is added (risk #5 new);
   - Gap costs are allocated to all PSNH distribution customers

Q. How are the $378 million customer savings generated under the settlement?

[16] NHPUC DE 14-238 Chung Testimony July 6, 2015, EHC-1, bates 000080
[17] When measuring the impact of the Settlement Agreement, my testimony combines the distribution and energy rate impact. Note that stranded costs are allocated across all distribution customers. To reflect the impact of stranded costs on energy service customers Table 1a column b reflects stranded costs as a component of energy service costs.
[18] See footnote 17

A. Customer savings are the difference between what customers would pay under today's ES calculation model (status quo) compared to the new model under the Settlement Agreement. Savings accrue primarily to customers who do not migrate. Below is Table 1a. It shows the status quo (column a) and proposed settlement/divesture model (column b). Customer savings calculations are shown in column d. Note the competitive model (column c) is shown for reference. Over time as stranded costs amortize the settlement/divest model becomes the competitive model.

Table #1a – includes Settlement / Divesture
Comparison of Energy Service Calculation Models

	row	(a) PSNH ES Cost Existing status quo	(b) PSNH ES Cost settlement/divested	(c) Other utilities ES Model (competitive)	(d) $ Customer Saving settlement/divested model	(e) PSNH above market gap (savings)
Variable	1	(a) Energy purchased (b)Energy generated	Energy Purchased (competitive)	Energy Purchased (competitive)	$ Savings = col a-b	
Fixed	2	O&M Costs			$ Savings = col a-b	
Fixed	3	Return costs			$ Savings = col a-b	
Fixed	3a		Stranded Costs (footnote 3a)		$ Savings = col a-b	
	4	PSNH ES Costs (rows 1+2+3)	PSNH ES Costs (rows 1+3a)	Competitive ES Costs (row 1a)	$ Savings = col a-b	
	5	Default Service Sales kWh	Default Service Sales kWh	Default Service Sales kWh		
	6	PSNH ES Rate (rows 4 ÷ 5)	PSNH ES Rate (rows 4 ÷ 5)	Competitive ES Rate (rows 4 ÷5)		gap = col a-c

Component definitions:
1 Energy: costs to acquire energy including capacity, environmental and miscellaneous;
2 O&M costs: operation & maintenance, depreciation, tax expenses related to PSNH generation;
3 Return costs: debt and equity costs related to PSNH generation;
3a Stranded Costs are allocated to all distribution customers. For comparison purposes stranded costs are presented as a component of ES. Stranded Costs include: 1) Securitization Principal and Interest (NHPUC DE 14-238, Chung testimony, EHC-1, bates 000080, row 1); 2) non-securitized stranded costs (rows 2, 3, 5)

Three costs in the existing status quo model (column a) are eliminated. The excluded costs are energy generation, O&M costs and return costs (rows 1b, 2 and 3). A new fixed component is added under the divesture model, stranded costs[19] (row 3a). Customer savings primarily benefit customers that do not migrate. Customer savings occur when the difference between the existing costs components methodology (column a rows 1+2+3) exceed the costs of the proposed new model (column b rows 1+3b). Customer savings in column d are

[19] See footnote 17

driven by a smaller PSNH above market gap helped by the elimination of O&M costs and return costs which decline to $0 (column b rows 2+3). Two critical assumptions/variables determine the level of future customer savings. The first key assumption is the continuation of PSNH's above market gap based on La Capra Report (column e row 6). The second key assumption is the magnitude of stranded costs (column b row 3a).

Q. Please illustrate "Customer Savings" (Table 1a column d) for 2017.

A. Below is Table 3a "Forecasted Customer Savings 2017" showing forecasted customer savings of $52.3 million in 2017 (in column E row 4b). Customer savings primarily benefit the default service customers who do not migrate.

Table #3a Forecasted Customer Savings 2017 – Status Quo vs Divesture 1) Total Energy Service Costs, 2) Competitiveness, 3) Retail Sales & distribution sales $000's					
	PSNH ES Component	(A) actual DE 14-120 2013 [1]	(B) Status Quo (owned generation) 2017	(C) Settlement (divested) 2017	(E) PSNH Gap (savings B-C) 2017
row	**ES Costs:**				
1	Energy (variable)	$169,478		$490,200	
2	O&M Costs (fixed)	$ 128,921		$0	
3	Return Costs (fixed)	$ 80,715		$0	
3a	Stranded Costs	$0	$0	$68,600	(68,600)
4	ES Costs default customers only (rows 1+2+3+3a)	$ 379,114	$355,100	$234,200	$120,900
4a	ES Costs migrated customers only		$256,000	$256,000	$0
4b	ES Costs all distribution customers (rows 4+4a)		$611,100	$558,800	$52,300
5	Non-energy cost (rows 2+3+3a)	$ 209,636		$68,600	
	Competitiveness:				
6	Capacity Factor	36%	32% est	na	
	Sales:				
7	Retail GWh sales	3,772	3,795	3,795	
7a	Migrated GWh sales		4,112	4,112	
	Distribution GWh sales		7,907	7,907	
	Migration	52%	52%	52%	

NOTE: savings primarily benefit the default service customers who do not migrate
Component definitions:
1 Energy: costs to acquire energy including capacity, environmental and miscellaneous
2 Operations: Operation & Maintenance, depreciation, taxes
3 Return: debt and equity costs
3a Stranded costs Type 1 and 2

[1] Exhibit JJB-7 (Shelnitz DE 14-120)

PSNH calculated customer savings[20] data used in the Table 3a columns B and C. Customer savings are taken from approximate rounded data in EHC-1. Similar calculations performed over the 15 year life of the Rate Reduction Bonds (RRB), coupled with savings from rate case stay-out provisions and other settlement conditions, generate forecasted customer savings of $378 million by year 2021.

[20] NHPUC DE 14-238, Chung Testimony, July 6, 2015, EHC-1

Q. Are the customer savings guaranteed under the settlement model?

A. No. The forecasted savings calculated by PSNH[21] are subject to risk and variations of variables including two key sets of assumptions:

Gap savings – the magnitude of the PSNH above market gap (example $120 million in 2017, table 3a column E row 4); and

Stranded costs – the magnitude of stranded costs (example $68.6 million in 2017, table 3a column E row 4b).

Q. What are stranded costs?

A. As discussed in PSNH filings, stranded costs include: 1) debt service on approximately $500 million securitized bonds; 2) over market costs of existing power purchase agreements (PPA) with an estimated NPV of $120 million; 3) other transition costs.

Q. Who pays stranded costs?

A. Stranded costs are paid by all distribution customers. This is in contrast to scrubber costs status quo where 100% O&M costs and 100% return costs are paid by default ES customers only. About 45% of stranded costs are allocated to the residential class. PPAs are currently included in ES rates.

Q. What is the rate impact of stranded costs on residential customers in 2017?

A. PSNH has calculated the rate impact of stranded costs[22]. Total stranded costs recovery charge (SCRC) for Rate R residential is 1.06 cents/kWh comprised of: 1) 0.81 cents debt service on bonds; 2) 0.25 cents existing PPAs. Costs decline

[21] NHPUC DE 14-238, Chung Testimony July 6, 2015, ECH-1, bates 000080
[22] NHPUC DE 14-238, Chung Testimony July 6, 2015, EHC-2, bates 000081.

annually as interest on bonds reduces with principal reductions. Interest expense associated with stranded costs is lower due to the benefits of securitization.

Q. In the Settlement Agreement stranded costs are not allocated equally across the rate classes. Is this fair?

A. Conceptually, PSNH's ownership of generation assets create costs (referred to here as "Generation Costs") both today and after settlement/divesture. Today, Generation Costs are the return costs - for example $80 million of return costs in ES for one year shown in Table 3a column A row 3. These costs are paid 100% by default service customers of which 85% are the residential class. This results in a heavy allocation of Generation Costs to the residential class as compared to large commercial and industrial (C&I) classes.

Under the Settlement Agreement the Generation Costs that are not offset by divesture are the stranded costs – for example $68 million shown in Table 3a column C row 3a. Stranded costs are paid by all distribution customers. Under settlement approximately 48% is allocated to the residential class and 52% to the other classes including large C&I. As a result C&I will pay more Generation Costs then they pay today. Conversely residential ES customers will pay less then what they pay today. Therefore Generation Costs (stranded costs) under the Settlement Agreement are more fairly allocated than Generation Costs (return costs) under the status quo.

Q. What is your assessment of the impact of the Settlement Agreement on PSNH ES customers?

A. Under the settlement and after divestiture the risks and costs to residential customers are significantly lower than under the status quo. The capital component within the ES calculation is removed. A stable stranded cost component that is paid by all distribution customers over a 15 year life is added. The severe risk of paying for all future prudent costs of PSNH's owned coal fired generation is removed. Lengthy regulatory cost of service rate making is replaced with a competitive bidding process in the deregulated energy market. As a result, the overall risk that PSNH's ES above market gap will widen to unreasonable levels is eliminated. When the PSNH ES rate moves toward competitive market rates, customer savings are generated for residential ES customers based on the gap forecasted in the La Capra Report. Estimated customer savings are partially offset by stranded costs. The magnitude of stranded costs is unknown until generation assets are sold. Analysis performed by PSNH indicates savings are not highly sensitive to stranded costs increases due to lower sales price of generation assets[23]. Based on analysis, including the La Capra Report, customers are better off with securitization of stranded costs. The impact of stranded costs on customer savings will be analyzed in the REMI model.

SECTION III

Q. Please explain why the OCA supports the Settlement Agreement?

[23] NHPUC DE 14-238, Chung testimony,bates63

A. I believe that the Settlement Agreement fairly and appropriately addresses the risk described in Sections I and II above, and presents a fair resolution of the issues before the Commission in both DE 14-238 and DE 11-250. As noted in detail above, events and risks that led to the PSNH above-market rate gap are expected to continue into the foreseeable future. These events include restructuring, scrubber implementation, and lower natural gas prices. These risks include competition, costs of excess capacity, sales decline, and coal fired generation ownership. These risks have been realized since 2009 and have the potential to increase in severity in coming years. Taking no action and leaving PSNH's existing ES model in place threatens the viability of PSNH's default ES.

Without settlement parties will continue to litigate DE 11-250 and DE 14-238 during which time O&M costs and the currently effective 9.81% return on equity costs would lead to higher rates and larger revenue deferrals.

With settlement, risks are minimized, costs are reduced, savings accrue to default ES customers, stranded costs are allocated across a wider base, and future uncertainty is replaced by certainty relative to the risks of owned generation. Residential customers are better off achieving the certainty of paying a long term fixed interest rate costs on a capped (and declining) amount of stranded costs compared to the extreme uncertainty of paying all future generation O&M costs plus 9.81% on unknown future levels of plant in rate base. Notwithstanding the risks of paying stranded costs, residential customers are better off no longer bearing the risks of non-economic coal fired generation.

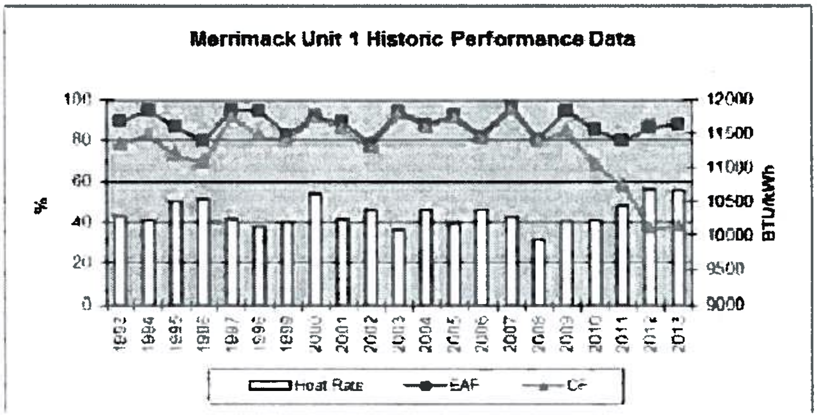
Q. Does this conclude your testimony?

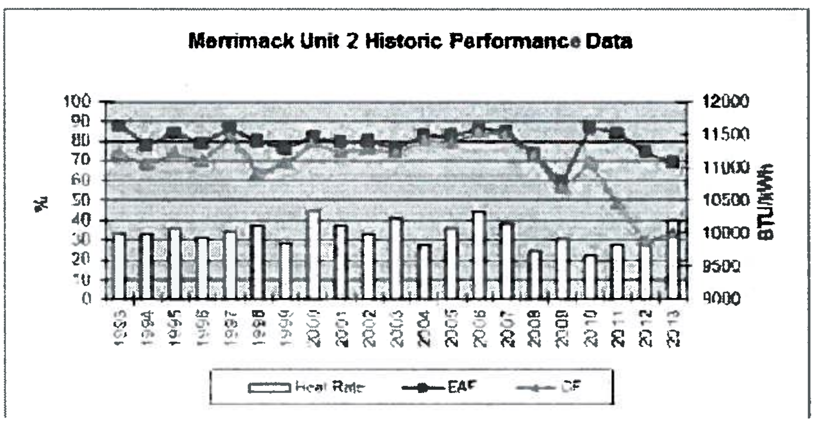
A. Yes

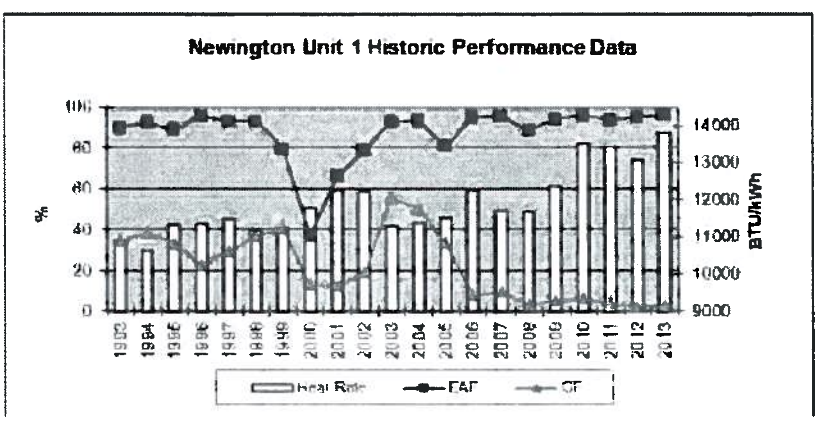
SUMMARY OF EXHIBITS

Exhibit No.	Description
JJB-1	NHPUC DE 14-120, William Smagula 5/1/2014 testimony, Attachment WHS-3 - Graphical representation Merrimack Unit 1, Unit 2 Historical Performance 1993-2013 -
JJB-2	Merrimack Capacity Factors 1993-2013 - numeric representation JJB-1 -
JJB-3	NHPUC DE 10-121, Baumann testimony 4/30/2010 Attachment RAB-3 - 2009 Actual Energy Service Costs twelve months ended 12/31/2009 -
JJB-4	NHPUC DE 11-094, R Baumann DE 5/2/2011 testimony Attachment RAB-3 - 2010 Actual Energy Service Costs twelve months ended 12/31/2010 -
JJB-5	NHPUC DE 12-116, R Baumann 5/1/2012 testimony Attachment RAB-3 - 2011 Actual Energy Service Costs twelve months ended 12/31/2011 -
JJB-6	NHPUC DE 13-108, Michael Shelnitz 5/9/2013 testimony Att MLS-3 - 2012 Actual Energy service Costs twelve months ended 12/31/2012 -
JJB-7	NHPUC DE 14-120,Michael Shelnitz 5/1/2014 testimony Attachment MLS-3 - 2013 Actual Energy Service Costs twelve months ended 12/31/2013 -
JJB-8	NHPUC DE 14-235 Staff 1-8 PSNH 11/18/2014 response - Unit capacity factors in the preliminary 2015 ES rate calculations. -
JJB-9	PSNH Migration Report 1st quarter 2015
JJB-10	PSNH Migration Report 2nd quarter 2015

Fossil Plant Graphs – Planned Outages Included







000100

Merrimack 1 Merrimack 2 Average Capacity Factors
Smagula 14-120 5/1/2014 Testimony ATT WHS-3

YEAR	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
MER 1 Avg CF	79%	83%	72%	69%	92%	81%	80%	91%	87%	79%	93%	88%	92%	82%	97%	82%	84%	67%	59%	38%	39[illegible]
MER 2	71%	68%	72%	69%	82%	63%	69%	89%	75%	76%	75%	80%	79%	85%	83%	72%	58%	69%	58%	29%	3[illegible]
AVG 1+2	75%	76%	72%	69%	87%	72%	75%	90%	81%	78%	84%	84%	86%	84%	90%	77%	71%	68%	59%	34%	36%

Brennan testimony
DE 14-238
Exhibit JJB-3
(DE 10-121 Baumann RAB-3)

Attachment RAB-3
Page 1 of 2

1
2 PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
3 2009 ENERGY SERVICE RECONCILIATION
4
5 FOR THE 12 MONTHS ENDED DECEMBER 31, 2009
6 (Dollars in 000's)
7
8

Line		January 2009	February 2009	March 2009	April 2009	May 2009	June 2009	Total for the six months ended 12/31/09(2)	Total for the twelve months ended 12/31/09
9	ACTUAL ENERGY SERVICE								
10	REVENUES AND COSTS								
11									
12	Energy Service Revenue								
13									
14	Residential	$ 29,530	$ 30,206	$ 25,160	$ 24,048	$ 21,842	$ 21,063	$ 141,288	$ 293,137
15	Commercial	25,032	25,619	21,775	22,427	21,408	20,252	110,715	247,228
16	Manufacturing	6,748	6,884	6,044	5,912	5,736	5,133	24,086	60,543
17	Public street lights	218	145	166	150	123	120	859	1,781
18	Sub-total	61,528	62,854	53,145	52,537	49,108	46,567	276,948	602,688
19									
20	Unbilled ES accrual	35,055	27,311	30,298	27,346	26,549	28,539	152,657	327,756
21	Prior month reversal	(27,301)	(35,055)	(27,311)	(30,298)	(27,346)	(26,549)	(154,750)	(328,610)
22	Net ES unbilled	7,755	(7,745)	2,988	(2,952)	(797)	1,990	(2,093)	(855)
23									
24	Net Energy Service Revenue	$ 69,283	$ 55,110	$ 56,133	$ 49,585	$ 48,311	$ 48,557	$ 274,855	$ 601,834
25									
26									
27	Energy Service Cost								
28									
29	Fossil energy costs	$ 24,335	$ 15,179	$ 17,189	$ 13,638	$ 12,500	$ 14,201	$ 54,651	$ 151,692
30	F/H O&M depr. & taxes	11,748	9,116	10,227	12,430	9,625	9,604	69,220	131,969
31	Return on rate base	3,518	3,510	3,487	3,512	3,512	3,510	21,789	42,838
32	Seabrook Costs (credits)	-	-	-	-	-	(208)	(95)	(303)
33	Vermont Yankee	635	581	590	626	630	548	3,741	7,353
34	IPP costs (1)	3,708	1,410	2,137	2,154	1,754	1,258	11,352	23,772
35	Purchases	21,972	20,494	20,193	24,854	17,869	21,646	151,992	279,020
36	Sales	(5,374)	(2,535)	(2,715)	(4,866)	(2,322)	(2,550)	(16,391)	(36,754)
37	ISO-NE Ancillary	461	782	727	616	448	470	263	3,767
38	Capacity Costs	3,525	3,143	3,028	2,812	2,589	2,891	10,549	28,538
39	NH RPS	988	988	988	988	884	164	4,357	9,358
40	RGGI Costs	771	626	681	628	619	562	3,097	6,983
41	ES Return	(69)	(58)	(58)	(55)	(53)	(49)	(142)	(482)
42									
43	Total Energy Service Cost	$ 66,218	$ 53,236	$ 56,474	$ 57,337	$ 48,055	$ 52,047	$ 314,383	$ 647,751
44									
45	Net Energy Service	$ (3,065)	$ (1,874)	$ 341	$ 7,752	$ (256)	$ 3,490	$ 39,528	$ 45,917
46	under (over) recovery (L43 - L24)								

47
48 (1) IPP Costs at market prices were calculated using the hourly ISO-NE clearing prices and a monthly capacity market value
49
50 (2) See Attachment RAB-3, page 2 of 2
51

Line		TOTAL May-Dec 2001	TOTAL Jan-Dec 2002	TOTAL Jan-Dec. 2003	TOTAL Jan-Dec. 2004	TOTAL Jan-Dec. 2005	TOTAL Jan-Dec. 2006	TOTAL Jan-Dec. 2007	TOTAL Jan-Dec. 2008	TOTAL Jan-Dec. 2009	AVERAGE May 2001 - December 2009
52											
53	ENERGY SERVICE										
54	COST PER KWH										
55											
56	Energy Service cost	$ 209,997	$ 361,474	$ 410,943	$ 444,757	$ 551,027	$ 609,654	$ 621,471	$ 680,380	$ 647,751	$ 4,537,454
57											
58	Retail MWH sales	4,934,048	7,369,393	7,653,568	7,964,760	8,110,367	7,462,686	7,585,627	7,595,272	6,290,761	64,966,482
59											
60	Energy Service cost per KWH	$ 0.0426	$ 0.0491	$ 0.0537	$ 0.0558	$ 0.0679	$ 0.0817	$ 0.0819	$ 0.0896	$ 0.1030	$ 0.0698

61
62
63 Amounts shown above may not add due to rounding

1 PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
2 2009 ENERGY SERVICE RECONCILIATION
3
4 FOR THE 6 MONTHS ENDED DECEMBER 31, 2009
5 (Dollars in 000's)
6
7
8

Line	ACTUAL ENERGY SERVICE REVENUES AND COSTS	July 2009	August 2009	September 2009	October 2009	November 2009	December 2009	Total for the six months ended 12/31/09
12	Energy Service Revenue							
13								
14	Residential	$ 24,144	$ 28,380	$ 23,837	$ 20,500	$ 20,769	$ 23,658	$ 141,288
15	Commercial	21,514	22,598	18,677	16,477	15,667	15,782	110,715
16	Manufacturing	5,117	5,226	4,459	3,717	2,963	2,604	24,086
17	Public street lights	122	125	139	151	152	170	859
18	Sub-total	50,897	56,328	47,113	40,845	39,551	42,214	276,948
19								
20	Unbilled ES accrual	31,127	29,831	21,944	21,427	21,882	26,446	152,657
21	Prior month reversal	(28,539)	(31,127)	(29,831)	(21,944)	(21,427)	(21,882)	(154,750)
22	Net ES unbilled	2,588	(1,296)	(7,887)	(517)	456	4,564	(2,093)
23								
24	Net Energy Service Revenue	$ 53,485	$ 55,032	$ 39,226	$ 40,328	$ 40,007	$ 46,778	$ 274,855
25								
26								
27	Energy Service Cost							
28								
29	Fossil energy costs	$ 13,585	$ 3,071	$ 5,720	$ 7,899	$ 8,498	$ 15,878	$ 54,651
30	F/H O&M depr. & taxes	16,626	10,528	4,252	11,811	14,022	11,981	69,220
31	Return on rate base	3,582	3,582	3,672	3,651	3,651	3,651	21,789
32	Seabrook Costs (credits)	-	-	(95)	-	-	-	(95)
33	Vermont Yankee	639	613	598	652	596	643	3,741
34	IPP Costs	1,796	1,769	953	1,256	1,865	3,713	11,352
35	Purchases	21,184	30,609	28,079	27,816	24,839	19,465	151,992
36	Sales	(2,075)	(2,117)	(1,191)	(2,065)	(3,704)	(5,239)	(16,391)
37	ISO-NE Ancillary	223	(17)	(77)	118	23	(7)	263
38	Capacity Costs	1,391	1,833	1,662	1,477	2,458	1,728	10,549
39	NH RPS	594	809	843	843	634	634	4,357
40	RGGI Costs	606	481	446	474	483	607	3,097
41	ES Return	(43)	(43)	(40)	(25)	(4)	13	(142)
42								
43	Total Energy Service Cost	$ 58,108	$ 51,118	$ 44,822	$ 53,907	$ 53,361	$ 53,067	$ 314,383
44								
45	Net Energy Service	$ 4,623	$ (3,914)	$ 5,596	$ 13,579	$ 13,354	$ 6,289	$ 39,528
46	under (over) recovery (L43 - L24)							

47
48
49
50 (1) IPP Costs at market prices were calculated using the hourly ISO-NE clearing prices and a monthly capacity market value.
51
52
53 Amounts shown above may not add due to rounding.

Attachment RAB-3
Page 1 of 2

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
2010 ENERGY SERVICE RECONCILIATION

FOR THE 12 MONTHS ENDED DECEMBER 31, 2010
(Dollars in 000s)

9 ACTUAL ENERGY SERVICE 10 REVENUES AND COSTS	January 2010	February 2010	March 2010	April 2010	May 2010	June 2010	Total for the six months ended 12/31/10 (2)	Total for the twelve months ended 12/31/10
12 Energy Service Revenue								
14 Residential	$ 28,425	$ 25,402	$ 22,443	$ 20,863	$ 19,834	$ 20,718	$ 143,890	$ 281,575
15 Commercial	16,782	15,647	14,589	14,082	14,016	14,247	83,895	173,257
16 Manufacturing	2,618	2,687	2,652	2,323	2,281	2,285	13,083	27,931
17 Public street lights	165	143	136	116	98	92	700	1,450
18 Sub-total	47,990	43,879	39,820	37,384	36,229	37,343	241,568	484,213
20 Unbilled ES accrual	26,259	22,061	21,573	19,176	20,444	23,608	130,747	263,867
21 Prior month reversal	(26,446)	(26,259)	(22,061)	(21,573)	(19,176)	(20,444)	(131,456)	(267,415)
22 Net ES unbilled	(187)	(4,198)	(488)	(2,397)	1,268	3,163	(710)	(3,548)
24 Net Energy Service Revenue	$ 47,803	$ 39,681	$ 39,333	$ 34,987	$ 37,497	$ 40,506	$ 240,858	$ 480,665
27 Energy Service Cost								
29 Fossil energy costs	$ 17,469	$ 16,634	$ 16,341	$ 12,032	$ 12,358	$ 15,498	$ 73,663	$ 163,996
30 F/H O&M depr. & taxes	10,524	9,974	10,983	12,917	12,943	13,037	60,619	130,998
31 Return on rate base	3,514	3,512	3,206	3,342	3,342	3,426	21,088	41,429
32 Seabrook Costs (credits)	-	-	-	-	-	1	(76)	(75)
33 Vermont Yankee	646	563	655	485	46	636	3,713	6,744
34 IPP costs (1)	3,744	2,244	2,069	2,315	2,340	2,146	14,693	29,571
35 Purchases	12,341	9,218	7,276	8,043	10,452	9,324	71,514	128,169
36 Sales	(3,280)	(3,681)	(3,013)	(1,542)	(2,052)	(3,797)	(23,036)	(40,400)
37 ISO-NE Ancillary	(591)	124	154	(142)	109	(79)	(330)	(756)
38 Capacity Costs	2,290	1,673	1,779	1,086	1,264	1,092	3,413	12,599
39 NH RPS	994	994	994	994	994	(610)	4,608	8,969
40 RGGI Costs	550	528	538	493	466	523	1,870	4,968
41 ES Return	15	18	22	26	32	38	227	378
43 Total Energy Service Cost	$ 48,218	$ 41,801	$ 41,024	$ 40,050	$ 42,294	$ 41,236	$ 231,966	$ 486,589
45 Net Energy Service 46 under (over) recovery (L43 - L24)	$ 415	$ 2,120	$ 1,682	$ 5,062	$ 4,797	$ 730	$ (8,892)	$ 5,924

48 (1) IPP Costs at market prices were calculated using the hourly ISO-NE clearing prices and a monthly capacity market value.

50 (2) See Attachment RAB-3, page 2 of 2.

53 ENERGY SERVICE 54 COST PER KWH	TOTAL May - Dec 2001	TOTAL Jan - Dec 2002	TOTAL Jan - Dec 2003	TOTAL Jan - Dec 2004	TOTAL Jan - Dec 2005	TOTAL Jan - Dec 2006	TOTAL Jan - Dec 2007	TOTAL Jan - Dec 2008	TOTAL Jan - Dec 2009	TOTAL Jan - Dec 2010
56 Energy Service cost	$ 209,997	$ 361,474	$ 410,943	$ 444,757	$ 551,027	$ 609,654	$ 621,471	$ 680,380	$ 647,751	$ 486,589
58 Retail MWH sales	4,934,048	7,369,393	7,653,568	7,964,760	8,110,367	7,462,688	7,585,627	7,595,272	6,290,761	5,419,726
60 Energy Service cost per KWH	$ 0.0426	$ 0.0491	$ 0.0537	$ 0.0558	$ 0.0679	$ 0.0817	$ 0.0819	$ 0.0896	$ 0.1030	$ 0.0898

63 Amounts shown above may not add due to rounding

Brennan testimony
DE 14-238
Exhibit JJB-4
(DE 11-094 Baumann RAB-3)

Attachment RAB-3
Page 2 of 2

1 PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
2 2010 ENERGY SERVICE RECONCILIATION

4 FOR THE 12 MONTHS ENDED DECEMBER 31, 2010
5 (Dollars in 000s)

	July 2010	August 2010	September 2010	October 2010	November 2010	December 2010	Total for the six months ended 12/31/10
9 ACTUAL ENERGY SERVICE							
10 REVENUES AND COSTS							
12 Energy Service Revenue							
14 Residential	$ 27,693	$ 27,350	$ 24,160	$ 20,654	$ 20,071	$ 23,960	$ 143,890
15 Commercial	15,954	15,873	14,683	13,152	11,689	12,542	83,895
16 Manufacturing	2,480	2,483	2,330	2,102	1,909	1,780	13,083
17 Public street lights	90	101	108	117	119	165	700
18 Sub-total	46,218	45,807	41,280	36,026	33,789	38,448	241,568
20 Unbilled ES accrual	26,266	24,437	19,673	17,899	19,573	22,898	130,747
21 Prior month reversal	(23,608)	(26,266)	(24,437)	(19,673)	(17,899)	(19,573)	(131,456)
22 Net ES unbilled	2,658	(1,829)	(4,763)	(1,774)	1,674	3,325	(710)
24 Net Energy Service Revenue	$ 48,875	$ 43,978	$ 36,517	$ 34,252	$ 35,463	$ 41,772	$ 240,858
27 Energy Service Cost							
29 Fossil energy costs	$ 18,532	$ 16,838	$ 12,693	$ 4,447	$ 8,300	$ 12,852	$ 73,663
30 F/H O&M depr. & taxes	10,988	10,457	10,498	13,682	10,927	4,068	60,619
31 Return on rate base	3,510	3,510	3,496	3,524	3,524	3,524	21,088
32 Seabrook Costs (credits)	-	-	(78)	-	-	3	(76)
33 Vermont Yankee	634	653	605	595	551	675	3,713
34 IPP Costs	2,133	1,610	1,949	1,613	3,002	4,386	14,693
35 Purchases	13,235	11,347	10,831	13,742	12,777	9,582	71,514
36 Sales	(4,122)	(3,739)	(3,665)	(2,508)	(3,111)	(5,891)	(23,036)
37 ISO-NE Ancillary	162	460	797	191	(465)	(1,475)	(330)
38 Capacity Costs	366	801	701	560	531	453	3,413
39 NH RPS	828	828	1,239	874	874	(36)	4,608
40 RGGI Costs	578	550	(324)	261	305	501	1,870
41 ES Return	37	35	37	41	43	34	227
43 Total Energy Service Cost	$ 46,881	$ 43,350	$ 38,779	$ 37,023	$ 37,258	$ 28,674	$ 231,966
45 Net Energy Service	$ (1,994)	$ (628)	$ 2,262	$ 2,771	$ 1,796	$ (13,098)	$ (8,892)
46 under (over) recovery (L43 - L24)							

50 (1) IPP Costs at market prices were calculated using the hourly ISO-NE clearing prices and a monthly capacity market value.

53 Amounts shown above may not add due to rounding.

Brennan testimony
DE 14-238
Exhibit JJB-5
(DE 12-116 Baumann RAB-3,bates 12)
Attachment RAB-3
Page 1 of 2

1 PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
2 2011 ENERGY SERVICE RECONCILIATION

4 FOR THE 12 MONTHS ENDED DECEMBER 31, 2011
5 (Dollars in 000s)

9 ACTUAL ENERGY SERVICE 10 REVENUES AND COSTS	January 2011	February 2011	March 2011	April 2011	May 2011	June 2011	Total for the six months ended 12/31/11 (2)	Total for the twelve months ended 12/31/11
12 Energy Service Revenue								
14 Residential	27,400	25,836	23,266	21,599	18,317	20,727	$ 138,665	$ 275,810
15 Commercial	13,422	13,077	12,358	11,917	10,824	12,274	75,221	149,092
16 Manufacturing	1,871	1,978	1,919	1,901	1,774	1,805	11,322	22,570
17 Public street lights	107	90	82	72	57	56	435	899
18 Sub-total	42,800	40,981	37,625	35,489	30,972	34,862	225,643	448,372
20 Unbilled ES accrual	23,381	19,814	20,242	16,838	18,417	19,961	122,079	240,732
21 Prior month reversal	(22,898)	(23,381)	(19,814)	(20,242)	(16,838)	(18,417)	(120,539)	(242,128)
22 Net ES unbilled	483	(3,567)	429	(3,405)	1,579	1,545	1,541	(1,396)
24 Net Energy Service Revenue	$ 43,283	$ 37,414	$ 38,054	$ 32,084	$ 32,551	$ 36,407	$ 227,184	$ 446,976
27 Energy Service Cost								
29 Fossil energy costs	$ 19,111	$ 14,553	$ 13,178	$ 7,745	$ 5,088	$ 9,294	$ 37,393	$ 106,362
30 F/H O&M depr. & taxes	9,327	8,886	10,812	14,989	13,338	10,050	72,284	139,686
31 Return on rate base	3,628	3,630	3,491	3,567	3,567	3,601	29,595	51,079
32 Seabrook Costs (credits)	-	-	-	-	-	(150)	(86)	(237)
Vermont Yankee	688	623	648	668	655	642	3,242	7,166
IPP costs (1)	4,174	2,090	2,341	2,638	2,231	1,581	10,326	25,381
Purchases	6,533	5,753	5,850	7,274	13,577	8,298	71,669	118,953
36 Sales	(6,039)	(3,248)	(2,195)	(1,604)	(1,639)	(1,317)	(9,135)	(25,177)
37 ISO-NE Ancillary	(560)	184	(798)	165	245	245	(866)	(1,386)
38 Capacity Costs	1,200	1,065	1,049	257	601	962	5,272	10,428
39 NH RPS	873	864	869	869	869	901	6,833	12,079
40 RGGI Costs	720	267	431	354	1,360	373	1,847	5,351
41 ES Return	22	18	13	15	24	27	111	230
43 Total Energy Service Cost	$ 39,676	$ 34,704	$ 35,690	$ 36,937	$ 39,917	$ 34,507	$ 228,484	$ 449,915
45 Net Energy Service 46 under (over) recovery (L43 - L24)	$ (3,607)	$ (2,709)	$ (2,364)	$ 4,852	$ 7,365	$ (1,900)	$ 1,301	$ 2,939

48 (1) IPP Costs at market prices were calculated using the hourly ISO-NE clearing prices and a monthly capacity market value.

50 (2) See Attachment RAB-3, page 2 of 2.

53 ENERGY SERVICE 54 COST PER KWH	TOTAL May - Dec 2001	TOTAL Jan - Dec 2002	TOTAL Jan - Dec 2003	TOTAL Jan - Dec 2004	TOTAL Jan - Dec 2005	TOTAL Jan - Dec 2006	TOTAL Jan - Dec 2007	TOTAL Jan - Dec 2008	TOTAL Jan - Dec 2009	TOTAL Jan - Dec 2010	TOTAL Jan - Dec 2011	Average May 2001 - December 2011
56 Energy Service cost	$ 209,997	$ 361,474	$ 410,943	$ 444,757	$ 551,027	$ 609,654	$ 621,471	$ 680,380	$ 647,751	$ 486,589	$ 449,915	$ 5,473,958
58 Retail MWH sales	4,934,048	7,369,393	7,653,568	7,964,780	8,110,367	7,462,688	7,585,627	7,595,272	6,290,761	5,419,726	5,091,947	75,478,155
60 Energy Service cost per KWH	$ 0.0426	$ 0.0491	$ 0.0537	$ 0.0558	$ 0.0679	$ 0.0817	$ 0.0819	$ 0.0896	$ 0.1030	$ 0.0898	$ 0.0884	$ 0.0725

63 Amounts shown above may not add due to rounding

000032

Brennan testimony
DE 14-238
Exhibit JJB-5
(DE 12-116 Baumann RAB-3 bates 12)

Attachment RAB-3
Page 2 of 2

1 PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
2 2011 ENERGY SERVICE RECONCILIATION

4 FOR THE 12 MONTHS ENDED DECEMBER 31, 2011
5 (Dollars in 000s)

		July 2011	August 2011	September 2011	October 2011	November 2011	December 2011	Total for the six months ended 12/31/11
9	ACTUAL ENERGY SERVICE							
10	REVENUES AND COSTS							
12	Energy Service Revenue							
14	Residential	24,702	26,815	23,620	20,718	20,413	22,397	$ 138,665
15	Commercial	13,615	14,116	13,367	12,049	11,087	10,987	75,221
16	Manufacturing	2,057	2,089	1,961	1,913	1,689	1,612	11,322
17	Public street lights	55	60	69	77	80	93	435
18	Sub-total	40,429	43,080	39,017	34,758	33,270	35,088	225,643
20	Unbilled ES accrual	24,241	22,686	18,857	16,486	18,307	21,502	122,079
21	Prior month reversal	(19,961)	(24,241)	(22,686)	(18,857)	(16,486)	(18,307)	(120,539)
22	Net ES unbilled	4,279	(1,555)	(3,829)	(2,371)	1,821	3,195	1,541
24	Net Energy Service Revenue	$ 44,709	$ 41,525	$ 35,188	$ 32,387	$ 35,091	$ 38,284	$ 227,184
27	Energy Service Cost							
29	Fossil energy costs	$ 9,378	$ 8,675	$ 1,565	$ 5,482	$ 9 369	$ 2,924	$ 37,393
30	F/H O&M depr. & taxes	10,506	9,634	9,877	14,779	15,611	11,876	72,284
31	Return on rate base	3,556	3,556	4,055	6,143	6,143	6,143	29,595
32	Seabrook Costs (credits)	-	-	(87)	-	-	0	(86)
33	Vermont Yankee	643	639	555	149	586	670	3,242
34	IPP Costs	1,597	1,061	1,804	2,076	1,983	1,805	10,326
35	Purchases	10,961	13,216	14,589	13,112	9,174	10,616	71,669
36	Sales	(1,814)	(1,279)	(1,256)	(2,102)	(1,703)	(981)	(9,135)
37	ISO-NE Ancillary	41	(88)	178	181	(897)	(280)	(866)
38	Capacity Costs	795	886	917	965	851	859	5,272
39	NH RPS	1,048	901	2,081	1,032	1,032	740	6,833
40	RGGI Costs	441	339	228	249	331	259	1,847
41	ES Return	19	10	7	14	28	32	111
43	Total Energy Service Cost	$ 37,169	$ 37,551	$ 34,513	$ 42,079	$ 42,509	$ 34,664	$ 228,484
45	Net Energy Service	$ (7,540)	$ (3,974)	$ (675)	$ 9,692	$ 7,418	$ (3,620)	$ 1,301
46	under (over) recovery (L43 - L24)							

50 (1) IPP Costs at market prices were calculated using the hourly ISO-NE clearing prices and a monthly capacity market value.

53 Amounts shown above may not add due to rounding.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
2012 ENERGY SERVICE RECONCILIATION

FOR THE 12 MONTHS ENDED DECEMBER 31, 2012
(Dollars in 000s)

ACTUAL ENERGY SERVICE REVENUES AND COSTS	January 2012	February 2012	March 2012	April 2012	May 2012	June 2012	Total for the six months ended 12/31/12 (2)	Total for the twelve months ended 12/31/12
Energy Service Revenue								
Residential	26,057	22,842	21,421	19,108	18,066	19,738	$ 112,664	$ 239,895
Commercial	11,591	10,516	9,993	9,486	9,100	10,134	49,892	110,811
Manufacturing	1,560	1,465	1,470	1,404	1,322	1,322	6,055	14,599
Public street lights	82	65	60	54	46	42	285	634
Sub-total	39,290	34,889	32,943	30,051	28,533	31,236	168,997	365,940
Unbilled ES accrual	20,698	18,715	17,777	15,599	18,404	19,641	85,298	196,132
Prior month reversal	(21,502)	(20,698)	(18,715)	(17,777)	(15,599)	(18,404)	(90,652)	(203,348)
Net ES unbilled	(804)	(1,983)	(938)	(2,178)	2,805	1,236	(5,354)	(7,216)
Net Energy Service Revenue	$ 38,486	$ 32,906	$ 32,005	$ 27,873	$ 31,338	$ 32,472	$ 163,643	$ 358,724
Energy Service Cost								
Fossil energy costs	$ 14,809	$ 8,767	$ 4,960	$ (3,130)	$ (4,318)	$ 5,295	$ 42,862	$ 69,245
F/H O&M depr. & taxes	10,308	10,302	11,339	11,548	10,194	9,581	63,990	127,261
Return on rate base	6,933	6,921	7,077	6,972	6,972	6,928	40,924	82,727
Seabrook Costs (credits)	-	-	1	-	-	-	(98)	(97)
Vermont Yankee	674	629	444	(1)	(3)	(8)	(1)	1,735
IPP costs (1)	3,036	2,283	2,259	1,920	2,609	3,336	21,885	37,329
Purchases	4,256	5,036	5,420	7,228	6,215	4,949	53,775	86,876
Sales	(1,925)	(1,037)	(971)	(799)	(307)	(2,176)	(17,789)	(25,006)
ISO-NE Ancillary	248	(674)	299	207	244	336	1,829	2,488
Capacity Costs	736	709	683	719	743	653	2,262	6,505
NH RPS	742	742	1,078	854	544	2,214	3,638	9,812
RGGI Costs	180	145	124	101	99	108	794	1,550
ES Return	116	143	170	161	163	161	1,308	2,221
Total Energy Service Cost	$ 40,114	$ 33,966	$ 32,883	$ 25,778	$ 23,154	$ 31,376	$ 215,378	$ 402,847
Net Energy Service under (over) recovery (L43 - L24)	$ 1,628	$ 1,060	$ 878	$ (2,095)	$ (8,185)	$ (1,096)	$ 51,733	$ 43,922

(1) IPP Costs at market prices were calculated using the hourly ISO-NE clearing prices and a monthly capacity market value.

(2) See Attachment MLS-3, page 2 of 2.

ENERGY SERVICE COST PER KWH	TOTAL May - Dec 2001	TOTAL Jan - Dec 2002	TOTAL Jan - Dec 2003	TOTAL Jan - Dec 2004	TOTAL Jan - Dec 2005	TOTAL Jan - Dec 2006	TOTAL Jan - Dec 2007	TOTAL Jan - Dec 2008	TOTAL Jan - Dec 2009	TOTAL Jan - Dec 2010	TOTAL Jan - Dec 2011	TOTAL Jan - Dec 2012	Average May 2001 - December 2012
Energy Service cost	$ 209,997	$ 361,474	$ 410,943	$ 444,757	$ 551,027	$ 609,654	$ 621,471	$ 680,380	$ 647,751	$ 486,589	$ 449,915	$ 402,647	$ 5,876,605
Retail MWH sales	4,934,048	7,369,393	7,653,568	7,964,760	8,110,367	7,462,688	7,585,827	7,595,272	6,290,761	5,419,726	5,091,947	4,600,990	80,079,146
Energy Service cost per KWH	$ 0.0426	$ 0.0491	$ 0.0537	$ 0.0558	$ 0.0679	$ 0.0817	$ 0.0819	$ 0.0898	$ 0.1030	$ 0.0898	$ 0.0884	$ 0.0875	$ 0.0734

Amounts shown above may not add due to rounding

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
2012 ENERGY SERVICE RECONCILIATION

FOR THE 12 MONTHS ENDED DECEMBER 31, 2012
(Dollars in 000s)

Line	ACTUAL ENERGY SERVICE REVENUES AND COSTS	July 2012	August 2012	September 2012	October 2012	November 2012	December 2012	Total for the six months ended 12/31/12
12	Energy Service Revenue							
14	Residential	23,328	22,499	18,359	14,836	15,460	18,181	$ 112,664
15	Commercial	10,282	9,665	8,551	7,240	6,863	7,392	49,992
16	Manufacturing	1,239	1,176	999	892	851	899	6,055
17	Public street lights	40	34	45	53	55	57	285
18	Sub-total	34,889	33,374	27,955	23,021	23,229	26,528	168,997
20	Unbilled ES accrual	18,015	16,402	11,839	11,809	12,946	14,287	85,298
21	Prior month reversal	(19,641)	(18,015)	(16,402)	(11,839)	(11,809)	(12,946)	(90,652)
22	Net ES unbilled	(1,626)	(1,613)	(4,563)	(31)	1,138	1,340	(5,354)
24	Net Energy Service Revenue	$ 33,264	$ 31,761	$ 23,392	$ 22,991	$ 24,367	$ 27,868	$ 163,643
27	Energy Service Cost							
29	Fossil energy costs	$ 13,525	$ 6,709	$ 1,132	$ 1,444	$ 6,430	$ 13,622	$ 42,862
30	F/H O&M depr. & taxes	10,828	10,455	11,113	11,690	9,828	10,075	63,990
31	Return on rate base	6,950	6,950	6,676	6,783	6,783	6,783	40,924
32	Seabrook Costs (credits)	-	-	(98)	-	-	-	(98)
33	Vermont Yankee	(6)	(3)	1	0	2	5	(1)
34	IPP Costs	3,439	3,492	2,484	3,112	5,345	4,012	21,885
35	Purchases	7,168	10,047	10,446	10,591	10,444	5,079	53,775
36	Sales	(1,687)	(1,640)	(1,727)	(2,969)	(5,547)	(4,219)	(17,789)
37	ISO-NE Ancillary	402	226	404	293	255	248	1,829
38	Capacity Costs	368	503	386	407	294	303	2,262
39	NH RPS	739	416	698	698	698	389	3,638
40	RGGI Costs	164	131	98	99	98	204	794
41	ES Return	173	187	203	227	248	269	1,306
43	Total Energy Service Cost	$ 42,061	$ 37,473	$ 31,817	$ 32,376	$ 34,879	$ 36,770	$ 215,376
45–46	Net Energy Service under (over) recovery (L43 - L24)	$ 8,797	$ 5,711	$ 8,425	$ 9,385	$ 10,512	$ 8,902	$ 51,733

50 (1) IPP Costs at market prices were calculated using the hourly ISO-NE clearing prices and a monthly capacity market value.

53 Amounts shown above may not add due to rounding.

1 PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
2 2013 ENERGY SERVICE RECONCILIATION

4 FOR THE 12 MONTHS ENDED DECEMBER 31, 2013
5 (Dollars in 000s)

9 ACTUAL ENERGY SERVICE 10 REVENUES AND COSTS	January 2013	February 2013	March 2013	April 2013	May 2013	June 2013	Total for the six months ended 12/31/13 (2)	Total for the twelve months ended 12/31/13
12 Energy Service Revenue								
14 Residential	23,181	25,282	21,235	18,832	16,052	17,160	$ 103,819	$ 225,561
15 Commercial	8,895	10,321	9,480	9,194	8,736	8,853	48,016	103,495
16 Manufacturing	986	1,217	1,455	1,338	1,067	984	5,162	12,209
17 Public street lights	75	69	64	56	51	48	289	652
18 Sub-total	33,138	36,889	32,234	29,420	25,906	27,045	157,286	341,917
20 Unbilled ES accrual	18,269	16,528	17,987	14,318	14,084	14,879	83,228	179,294
21 Prior month reversal	(14,287)	(18,269)	(16,528)	(17,987)	(14,318)	(14,084)	(82,676)	(178,150)
22 Net ES unbilled	3,983	(1,741)	1,459	(3,669)	(234)	794	551	1,144
24 Net Energy Service Revenue	$ 37,121	$ 35,148	$ 33,693	$ 25,751	$ 25,672	$ 27,839	$ 157,837	$ 343,061
27 Energy Service Cost								
29 Fossil energy costs (3)	$ 17,277	$ 19,344	$ 14,282	$ 2,081	$ 2,119	$ 4,166	$ 37,541	$ 96,811
30 F/H O&M depr. & taxes	10,469	9,582	9,762	11,943	10,636	9,577	66,953	128,921
Return on rate base	6,689	6,690	6,439	6,539	6,539	6,759	41,060	80,715
Burgess BioPower	-	-	-	-	-	-	271	271
Vermont Yankee	(1)	3	(1)	3	(1)	(1)	23	26
34 IPP Costs (1)	6,506	7,311	5,149	4,254	3,450	2,602	13,831	43,103
35 Purchases	5,225	2,577	4,580	11,466	9,336	7,612	55,410	96,208
36 Sales	(11,377)	(15,832)	(7,334)	(5,180)	(3,767)	(3,584)	(25,190)	(72,264)
37 ISO-NE Ancillary	194	(535)	(832)	292	(7)	(108)	(646)	(1,642)
38 Capacity Costs	276	156	153	10	(237)	(309)	(2,083)	(2,034)
39 NH RPS	1,521	1,521	1,521	-	-	1,720	3,845	10,128
40 RGGI Costs	149	144	137	103	(2,193)	114	(3,800)	(5,346)
41 ES Return	284	290	298	312	325	334	2,375	4,217
43 Total Energy Service Cost	$ 37,212	$ 31,252	$ 34,155	$ 31,823	$ 26,201	$ 28,883	$ 189,589	$ 379,114
45 Net Energy Service 46 under (over) recovery (L43 - L24)	$ 91	$ (3,896)	$ 462	$ 6,072	$ 528	$ 1,043	$ 31,752	$ 36,054

48 (1) IPP Costs at market prices were calculated using the hourly ISO-NE clearing prices and a monthly capacity market value.

50 (2) See Attachment MLS-3, page 2 of 2

52 (3) April includes a credit of ($2) for write-off of Replacement Power Costs per Docket 12-116

55 ENERGY SERVICE 56 COST PER KWH	TOTAL May - Dec 2001	TOTAL Jan - Dec 2002	TOTAL Jan - Dec 2003	TOTAL Jan - Dec 2004	TOTAL Jan - Dec 2005	TOTAL Jan - Dec 2006	TOTAL Jan - Dec 2007	TOTAL Jan - Dec 2008	TOTAL Jan - Dec 2009	TOTAL Jan - Dec 2010	TOTAL Jan - Dec 2011	TOTAL Jan - Dec 2012	TOTAL Jan - Dec 2013	Average May 2001 - December 2013
58 Energy Service cost	$ 209,997	$ 361,474	$ 410,943	$ 444,757	$ 551,027	$ 609,654	$ 621,471	$ 680,380	$ 647,751	$ 486,589	$ 449,915	$ 402,647	$ 379,114	$ 6,255,719
60 Retail MWH sales	4,934,048	7,369,393	7,653,568	7,964,760	8,110,367	7,462,688	7,585,627	7,595,272	6,290,761	5,419,726	5,091,947	4,600,990	3,772,661	83,851,806
62 Energy Service cost per KWH	$ 0.0426	$ 0.0491	$ 0.0537	$ 0.0558	$ 0.0679	$ 0.0817	$ 0.0819	$ 0.0896	$ 0.1030	$ 0.0898	$ 0.0884	$ 0.0875	$ 0.1005	$ 0.0746

65 Amounts shown above may not add due to rounding.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
2013 ENERGY SERVICE RECONCILIATION

FOR THE 12 MONTHS ENDED DECEMBER 31, 2013
(Dollars in 000s)

Line	ACTUAL ENERGY SERVICE REVENUES AND COSTS	July 2013	August 2013	September 2013	October 2013	November 2013	December 2013	Total for the six months ended 12/31/13
12	Energy Service Revenue							
14	Residential	21,268	18,897	16,944	13,756	14,559	18,394	$ 103,819
15	Commercial	9,496	8,734	8,223	7,023	6,764	7,776	48,016
16	Manufacturing	962	935	916	751	772	826	5,162
17	Public street lights	38	41	48	52	55	56	289
18	Sub-total	31,764	28,608	26,130	21,581	22,150	27,052	157,286
20	Unbilled ES accrual	16,700	15,038	11,472	11,588	12,999	15,430	83,228
21	Prior month reversal	(14,879)	(16,700)	(15,038)	(11,472)	(11,588)	(12,999)	(82,676)
22	Net ES unbilled	1,821	(1,662)	(3,565)	115	1,411	2,431	551
24	Net Energy Service Revenue	$ 33,585	$ 26,946	$ 22,565	$ 21,697	$ 23,561	$ 29,483	$ 157,837
27	Energy Service Cost							
29	Fossil energy costs	$ 12,252	$ 3,698	$ 630	$ 1,439	$ 3,494	$ 16,027	$ 37,541
30	F/H O&M depr. & taxes	10,523	10,285	10,426	14,515	10,393	10,812	66,953
31	Return on rate base	6,886	6,886	6,788	6,833	6,833	6,833	41,060
32	Burgess BioPower	-	-	-	-	-	271	271
33	Vermont Yankee	7	4	4	9	5	(7)	23
34	IPP Costs (1)	3,362	1,890	1,869	1,516	1,770	3,424	13,831
35	Purchases	8,023	9,873	9,627	9,418	10,393	8,078	55,410
36	Sales	(6,026)	(2,490)	(3,368)	(1,743)	(2,107)	(9,456)	(25,190)
37	ISO-NE Ancillary	(188)	(1,140)	48	598	216	(181)	(646)
38	Capacity Costs	(350)	(303)	(334)	(348)	(406)	(342)	(2,083)
39	NH RPS	-	1,457	172	745	706	766	3,845
40	RGGI Costs	127	(2,441)	101	(1,825)	103	135	(3,800)
41	ES Return	354	364	379	402	428	448	2,375
43	Total Energy Service Cost	$ 34,969	$ 28,082	$ 26,341	$ 31,558	$ 31,830	$ 36,809	$ 189,589
45–46	Net Energy Service under (over) recovery (L43 - L24)	$ 1,384	$ 1,136	$ 3,776	$ 9,861	$ 8,269	$ 7,326	$ 31,752

(1) IPP Costs at market prices were calculated using the hourly ISO-NE clearing prices and a monthly capacity market value.

Amounts shown above may not add due to rounding.

00013

Public Service Company of New Hampshire
Docket No. DE 14-235

Date Request Received: 11/06/2014 **Date of Response: 11/18/2014**
Request No. STAFF 1-008 **Page 1 of 2**
Request from: New Hampshire Public Utilities Commission Staff

Witness: Frederick White

Request:
Reference Attachment CJG-2, page 3. Please provide the annual and monthly capacity factors used for each of PSNH's owned fossil and hydro generating stations in the calculation of the preliminary ES rate. Please provide in the same format as the response to Staff-01, Q-STAFF-009 in DE 12-292.

Response:
Please see the attached table.

Public Service Company of New Hampshire
Docket No. DE 14-235

Staff 1-008
Dated: 11/6/1
Page 2 of 2

Unit Capacity Factors in the Preliminary 2015 ES Rate Calculation

2015	Merrimack 1	Merrimack 2	Schiller 4	Schiller 5	Schiller 6	Newington	Hydros	ICUs
Jan	94%	94%	94%	89%	94%	20%	74%	0%
Feb	94%	94%	94%	89%	94%	18%	70%	0%
Mar	90%	86%	76%	79%	77%	0%	85%	0%
Apr	0%	0%	0%	32%	0%	0%	96%	0%
May	0%	0%	0%	89%	0%	0%	90%	0%
Jun	24%	23%	4%	89%	4%	5%	64%	0%
Jul	30%	28%	4%	89%	4%	13%	48%	0%
Aug	0%	0%	0%	89%	0%	0%	41%	0%
Sep	0%	0%	2%	89%	2%	1%	35%	0%
Oct	0%	0%	0%	89%	0%	0%	50%	0%
Nov	55%	57%	0%	89%	0%	0%	68%	0%
Dec	94%	94%	94%	89%	94%	0%	65%	0%
Total	40%	39%	30%	83%	30%	5%	65%	0%

780 N. Commercial Street, Manchester, NH 03101

Eversource Energy
P.O. Box 330
Manchester, NH 03105-0330
(603) 634-2701
Fax (603) 634-2449

Christopher J. Goulding
Manager, NH Revenue Requirements

E-Mail: Christopher.goulding@eversource.com

April 14, 2015

Debra A. Howland
Executive Director
New Hampshire Public Utilities Commission
21 S. Fruit Street, Suite 10
Concord, NH 03301

Re: 1st Quarter 2015 Customer Migration Report

Dear Ms. Howland:

In its Order No. 24,714 – Order Approving Energy Service Rate in Docket DE 06-125, the Commission directed PSNH d/b/a Eversource Energy to provide monthly data regarding the migration of its customers to the competitive market on a quarterly basis. Enclosed for filing with the Commission is a Customer Migration Report for the 1st quarter of 2015. This report is being filed electronically with one paper copy being sent to the Commission.

We would be pleased to respond to any questions the Commission may have on this report.

Very truly yours,

Christopher J. Goulding
Manager, NH Revenue Requirements

CJG:kd
Enclosure
cc: Service List (by electronic mail only)

Brennan testimony
DE 14-238
Exhibit JJB-9
(PSNH 2015 1st Q Migration)

Public Service Company of New Hampshire, d/b/a Eversource Energy
Migration of Customers To and From the Competitive Energy Supply Market
2015 Report
to the New Hampshire Public Utilities Commission

	Customers Receiving Energy Service From the Competitive Market			Retail Sales			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Number of Customers Not Billed for PSNH's Energy Service	Total Kilowatt-hours Delivered (KWH)	Estimated Demand at the Time of PSNH's System Peak Reported to the ISO-NE (KW)	Total Customers Taking Delivery Service	% of Customers Not Billed for PSNH's Energy Service as a % of Total Customers* Col (1) / Col (4)	Total KWH Delivered To All Customers (KWH)	%of Kilowatt-hours Not Billed for PSNH's Energy Service as a % of Total KWH Col (2) / Col (6)
January							
Residential	78,423	65,425,681		427,910	18.33%	321,183,338	20.37%
Small C&I Rate G	19,186	54,057,575		74,256	25.84%	149,379,854	36.19%
Medium C&I Rate GV	679	76,175,615		1,382	49.13%	140,875,412	54.07%
Large C&I Rate LG	77	66,576,896		125	61.60%	96,702,449	68.85%
Lighting	287	1,249,299		974	29.47%	4,115,499	30.36%
Total	98,652	263,485,067	483,430	504,647	19.55%	712,256,552	36.99%
February							
Residential	75,940	59,885,258		423,912	17.91%	303,899,305	19.71%
Small C&I Rate G	18,845	53,534,302		73,951	25.48%	151,588,064	35.32%
Medium C&I Rate GV	678	74,147,514		1,350	50.22%	136,397,589	54.36%
Large C&I Rate LG	75	69,952,463		123	60.98%	100,359,900	69.70%
Lighting	275	1,066,212		974	28.23%	3,491,081	30.54%
Total	95,813	258,585,749	479,473	500,310	19.15%	695,735,939	37.17%
March							
Residential	75,037	57,763,744		423,940	17.70%	300,575,418	19.22%
Small C&I Rate G	19,108	53,821,716		73,813	25.89%	147,212,377	36.56%
Medium C&I Rate GV	762	77,908,450		1,403	54.31%	130,154,530	59.86%
Large C&I Rate LG	87	78,867,847		126	69.05%	98,838,503	79.79%
Lighting	314	1,195,986		964	32.57%	3,296,857	36.28%
Total	95,308	269,557,744	470,158	500,246	19.05%	680,077,685	39.64%

*"Total Customers" refers to all customers taking Delivery Service.

780 N. Commercial Street, Manchester, NH 03101

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Christopher J. Goulding
Manager, NH Revenue Requirements

E-Mail: Christopher.goulding@eversource.com

July 14, 2015

Debra A. Howland
Executive Director
New Hampshire Public Utilities Commission
21 S. Fruit Street, Suite 10
Concord, NH 03301

Re: 2nd Quarter 2015 Customer Migration Report

Dear Ms. Howland:

In its Order No. 24,714 – Order Approving Energy Service Rate in Docket DE 06-125, the Commission directed PSNH d/b/a Eversource Energy to provide monthly data regarding the migration of its customers to the competitive market on a quarterly basis. Enclosed for filing with the Commission is a Customer Migration Report for the 2nd quarter of 2015. This report is being filed electronically with one paper copy being sent to the Commission.

We would be pleased to respond to any questions the Commission may have on this report.

Very truly yours,

Christopher J. Goulding
Manager, NH Revenue Requirements

CJG:kd
Enclosure
cc: Service List (by electronic mail only)

Public Service Company of New Hampshire d/b/a Eversource Energy
Migration of Customers To and From the Competitive Energy Supply Market
2015 Report
to the New Hampshire Public Utilities Commission

	Customers Receiving Energy Service From the Competitive Market			Retail Sales			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Number of Customers Not Billed for PSNH's Energy Service	Total Kilowatt-hours Delivered (KWH)	Estimated Demand at the Time of PSNH's System Peak Reported to the ISO-NE (KW)	Total Customers Taking Delivery Service	% of Customers Not Billed for PSNH's Energy Service as a % of Total Customers* Col (1) / Col (4)	Total KWH Delivered To All Customers (KWH)	%of Kilowatt-hours Not Billed for PSNH's Energy Service as a % of Total KWH Col (2) / Col (6)
April							
Residential	79,274	52,410,013		426,857	18.57%	257,627,223	20.34%
Small C&I Rate G	22,617	65,686,071		74,243	30.46%	139,607,646	47.05%
Medium C&I Rate GV	972	98,302,295		1,374	70.74%	131,996,721	74.47%
Large C&I Rate LG	99	91,079,255		123	80.49%	102,432,636	88.92%
Lighting	426	1,269,038		971	43.87%	2,928,879	43.33%
Total	103,388	308,746,671	509,876	503,568	20.53%	634,593,105	48.65%
May							
Residential	80,457	47,194,074		421,015	19.11%	218,353,698	21.61%
Small C&I Rate G	23,210	69,137,999		74,006	31.36%	135,721,358	50.94%
Medium C&I Rate GV	1,016	101,603,374		1,357	74.87%	130,623,991	77.78%
Large C&I Rate LG	103	98,888,541		125	82.40%	105,794,175	93.47%
Lighting	439	1,098,716		968	45.35%	2,452,693	44.80%
Total	105,225	317,922,703	767,233	497,471	21.15%	592,945,915	53.62%
June							
Residential	83,270	51,851,616		427,973	19.46%	232,479,103	22.30%
Small C&I Rate G	23,563	73,586,163		74,208	31.75%	142,628,155	51.59%
Medium C&I Rate GV	1,055	111,225,986		1,375	76.73%	139,528,652	79.72%
Large C&I Rate LG	103	106,439,187		122	84.43%	113,497,975	93.78%
Lighting	439	1,244,954		963	45.59%	2,288,033	54.41%
Total	108,430	344,347,906	674,784	504,641	21.49%	630,421,918	54.62%

*"Total Customers" refers to all customers taking Delivery Service.