



**Public Service  
of New Hampshire**

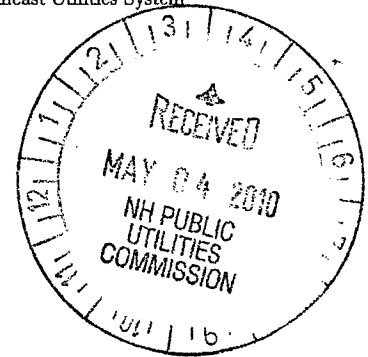
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The Northeast Utilities System

<b>ORIGINAL</b>
N.H.P.U.C. Case No. <u>DE 09-180</u>
Exhibit No. <u>23</u>
Witness <u>Panel 1</u>
<b>DO NOT REMOVE FROM FILE</b>

May 4, 2010



Debra A. Howland  
Executive Director and Secretary  
State of New Hampshire  
Public Utilities Commission  
21 South Fruit Street, Suite 10  
Concord, NH 03301-2429

Re: Interim Change in the Default Energy Service Rate Docket No. DE 09-180

Dear Ms. Howland:

Enclosed please find an original and six copies of the Prepared Direct Testimony of Robert A. Baumann with attachments and a Joint Technical Statement Robert A. Baumann and Frederick B. White containing a calculation and supporting documentation for a Default Energy Service (Energy Service) rate applicable to PSNH's customers who take service under Energy Service Rate DE on and after July 1, 2010. PSNH currently calculates that there will be a decrease from the current rate of 8.96 cents per kilowatt-hour to 8.57 cents per kilowatt-hour. This estimate includes actual costs through March 2010 and a projection of costs from April through December.

As was customary in the past, PSNH will file updated projections of costs and actual experience through April prior to the hearing in this matter; therefore, the rate PSNH ultimately requests may differ from the enclosed calculation. PSNH requests that the Commission reopen this proceeding and schedule a hearing so that a final determination of a rate may be made on or before June 28, 2010 to calculate and test all of the rate changes scheduled for July 1, 2010. Concurrently with this filing, PSNH is requesting the Commission to reopen the Stranded Cost Recovery Charge (SCRC) proceeding to enable PSNH to request a change in the SCRC on July 1, 2010. At the beginning of June PSNH will file a request for a new Transmission Cost Adjustment Mechanism rate also for effect on July 1, 2010.

Copies of this filing have been provided to the persons on the attached service list pursuant to Puc§203.02 and Puc §203.11.

Very truly yours,

for Gerald M. Eaton  
Senior Counsel

Enclosures  
cc: Service List

**Service List**  
**Docket DE 09-180**

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**THE STATE OF NEW HAMPSHIRE**  
**BEFORE THE NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION**  
**PREPARED TESTIMONY OF ROBERT A. BAUMANN**  
**DEFAULT ENERGY SERVICE RATE**  
**MID-TERM ADJUSTMENT EFFECTIVE JULY 1, 2010**  
**Docket No. DE 09-180**

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

2 A. My name is Robert A. Baumann. My business address is 107 Selden Street, Berlin,  
3 Connecticut. I am Director, Revenue Regulation & Load Resources for Northeast  
4 Utilities Service Company (NUSCO). NUSCO provides centralized services to the  
5 Northeast Utilities (NU) operating subsidiaries, including Public Service Company of  
6 New Hampshire (PSNH), The Connecticut Light and Power Company, Yankee Gas  
7 Services Company, and Western Massachusetts Electric Company.

8 **Q. Have you previously testified before the Commission?**

9 A. Yes. I have testified on numerous occasions before the Commission.

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

11 A. The purpose of my testimony is to provide a detailed overview of PSNH's request for a  
12 mid-term adjustment to decrease the current Default Energy Service (ES) rate effective  
13 on July 1, 2010.

1 **Q. What is PSNH requesting in this proceeding?**

2 A. In this proceeding, PSNH is requesting that the Commission approve a mid-term  
3 adjustment to the ES rate for all customers effective July 1, 2010. This rate adjustment  
4 would decrease the current ES rate of 8.96 cents per kWh to 8.57 cents per kWh, based  
5 on actual results through March 2010 and the most current forecast of PSNH's costs of  
6 providing such power for the remainder of 2010. PSNH is proposing the ES rate change  
7 to take effect July 1, 2010 consistent with its simultaneous proposal to change the  
8 SCRC. In addition, in early June 2010, PSNH will also file its proposal to change the  
9 Transmission Cost Adjustment Mechanism (TCAM) effective July 1, 2010. The detailed  
10 calculations supporting the proposed ES rate can be found in Attachments RAB-1 and  
11 RAB-2 to this testimony.

12 **Q. Does this testimony address any other significant issues?**

13 A. Yes. My testimony elaborates on the level of customer migration embedded in this  
14 forecasted ES rate calculation and impacts created by migration on the ES rate.

15 **Q. Please provide the historic and current ES rates.**

16 A. The table below outlines ES rates in effect from May 1, 2001 to the present for  
17 residential, small commercial and industrial customers (Group 1) and large commercial  
18 and industrial customers (Group 2).

**Date of Service**

May 2001 - January 2003	(a) 4.40 cents per kWh
February 2003 - January 2004	(b) 4.60 /4.67
February 2004 - July 2004	5.36
August 2004 - January 2005	5.79
February 2005 - July 2005	6.49
August 2005 - January 2006	7.24
February 2006 – June 2006	9.13
July 2006 - December 2006	8.18
January 2007 – June 2007	8.59
July 2007 – December 2007	7.83
January 2008 – June 2008	8.82
July 2009-December 2008	9.57
January 2009 – July 2009	9.92
August 2009 – December 2009	9.03
January 2010 – July 2010	8.96

1 (a) Set by statute for all retail customers.

2 (b) Small C&I and residential set by statute (4.60 cents). Large C&I set on forecasted  
3 costs (4.67 cents).

4 Initially, Energy Service rates were set by statute. Beginning in February 2003, the  
5 Energy Service rate for large commercial and industrial customers was based on  
6 PSNH's forecast of "actual, prudent and reasonable costs" (4.67 cents). Beginning in  
7 February 2004, the Energy Service rate for all retail customers was based on a forecast  
8 of PSNH's "actual, prudent and reasonable costs."

9 **Q. Please provide an overview of how the Energy Service cost recovery mechanism**  
10 **works.**

1 A. PSNH recovers the cost of supplying energy to customers who choose to receive energy  
2 from PSNH through the ES rate. The ES rate is forecasted and reconciled once actual  
3 costs are known. ES reconciliation amounts, beginning in February 2006, are deferred  
4 and applied to future ES rate recoveries per the Commission's order and findings in  
5 Docket No. DE 05-164, Order No. 24,579, dated January 20, 2006.

6 **Q. Describe what has transpired during the ES period beginning January 1, 2010?**

7 A. The current ES rate of 8.96 cents per kWh began on January 1, 2010 for the twelve  
8 month period, January – December 2010. The primary reasons for the 0.39 c/kWh  
9 recommended decrease in the rate to 8.57 cents is due to lower projected forward  
10 market prices, a resale of 50,000 tons of undelivered coal at a projected savings of \$2.3  
11 million and lower actual and forecasted F/H O&M costs of \$5.2 million. In addition, part  
12 of the decrease in the ES rate is due to lower actual and forecasted return on rate base  
13 of \$3.4 million due to a lower actual ROR rate and lower net plant and fuel inventory  
14 values as compared to previous estimates. These lower forecasted costs were partially  
15 offset by an actual under recovery for the period November 2009 - March 2010, caused  
16 in part by increased migration.

17 **Q. When will PSNH provide an update to the proposed ES rate?**

18 A. The values in this filing will be updated in about four weeks to reflect actual results for  
19 April 2010. In addition, if there are any other significant changes, such as a significant  
20 change to the forecasted forward market prices from those used in developing this rate

1 or significant changes in projected customer migration, then PSNH will also update its  
2 rate for these changes. At that time we will provide further detail to support this  
3 requested rate change and provide an updated Technical Statement.

4 **Q. Are the costs that PSNH has included in this ES rate filing consistent with past ES**  
5 **filings?**

6 A. Yes. ES costs contain the generation asset revenue requirements, entitlements and  
7 purchased power obligations, including the cost of fuel used for generation. In addition,  
8 ES costs include the costs and revenues from market purchases and sales, ISO-NE  
9 expenses and revenues, New Hampshire Renewable Portfolio Standard costs (RSA  
10 Chapter 362-F), Regional Greenhouse Gas Initiative costs (RSA 125-O:19-125-O:28),  
11 and IPP power valued at market prices. Finally, ES costs include non-fuel operation and  
12 maintenance costs (O&M), depreciation, property taxes and payroll taxes, uncollectible  
13 costs attributable to ES, and a return on the net generation investment.

14 **Q. How is PSNH's mandated purchased power obligations (IPPs) valued in**  
15 **calculating the Energy Service rate?**

16 A. PSNH includes the IPP generation as a source of power to meet PSNH's load  
17 requirements, and that power is valued based on projected market costs (energy and  
18 capacity). The over-market portion of purchases from the IPPs is considered to be a  
19 stranded cost and recovered as a Part 2 cost through the Stranded Cost Recovery  
20 Charge. This treatment is consistent with the Restructuring Settlement and the  
21 Commission's Order in Docket No. DE 02-166. As market prices increase, the ES costs

1 increase and there is a corresponding decrease to the SCRC rate for the same time  
2 period. To properly match the recovery of IPP costs, PSNH will also simultaneously file  
3 for a change in the SCRC rate effective July 1, 2010.

#### 4 **Customer Migration**

5 **Q. Explain how the issue of customer migration has been treated in this filing.**

6 A. In the Commission's Order No. 25,061 in Docket No. DE 09-180 (hereinafter "the  
7 Commission's Order"), an ES rate was approved assuming a going forward migration  
8 rate of 27%. It was shown in that docket that as customers migrated to third party  
9 supply during a time when the marginal cost to serve is lower than the average cost to  
10 serve; the ES rate is increased for the remaining ES customers. Most of those ES  
11 customers are the residential customers and the smaller commercial customers that  
12 have less of an opportunity to choose third party supply ("small customers"). It was  
13 PSNH's testimony at that time, and it is today, that this phenomenon is unfair to the  
14 small customers remaining on the ES rate and an unintended impact resulting from the  
15 changes brought about due to restructuring. Furthermore, large customers who have  
16 selected a third party supply benefit from PSNH's embedded supply if they elect to  
17 return to PSNH. This guaranteed back up supply is available to such customers at no  
18 cost to them. In the meantime, small customers are left with a higher ES rate as they  
19 continue to support PSNH's supply. Recognizing this issue, the Commission's Order in  
20 that docket, page 31 noted the following:

21 **"It is clear that approving Method 2 alone, however, does not fully address**  
22 **the effects of the migration of large customers to competitive suppliers on**  
23 **PSNH's small commercial and residential customers who have less of an**



1           **opportunity to choose an electric supplier. We are not persuaded that**  
2           **PSNH has yet taken measures sufficient to address potential migration**  
3           **and, therefore, we will require the Company to develop a meaningful range**  
4           **of forecasts of customer migration as it prepares to recommend a mid-year**  
5           **adjustment to its ES rate effective July 1, 2010.”**

6           The Commission’s Order presented two issues associated with migration which will be  
7           addressed below. These are (1) the issue of migration impacts on the small customers’  
8           ES rates as discussed above and (2), the development of a meaningful forecasted range  
9           for future migration for the ES rate calculations.

10   **Q.    Explain the migration impacts on the small customers’ ES rates resulting from the**  
11   **migration of large customers to competitive suppliers.**

12   **A.**PSNH agrees that recent increases in the ES rate for small customers, due to migration  
13           of larger customers, was not fully addressed in the last proceeding. It is still our belief  
14           that a portion of the current ES costs should be removed from the ES rates and  
15           recovered through a non-bypassable rate from all customers. Such a recovery would  
16           then fairly spread the cost of back up supply to all customers, not just small customers.  
17           We stand ready to take part in any effort that is deemed appropriate that would further  
18           address this fairness issue.

19   **Q.    What level of migration has PSNH used in this filing?**

1 A. The percent of migration assumed for this filing is 29.7%. This value represents the  
2 actual current migration level on PSNH's system as of March 31, 2010. With respect to  
3 the Commission's Order noted above, we also forecasted two alternative ES migration  
4 scenarios and calculated the corresponding ES rates. The latest 3 months of  
5 incremental migration percentages, since the setting of the current ES rate, were used to  
6 calculate and apply a historical trend for the two migration alternatives. These 2  
7 alternative scenarios changed migration levels on a monthly basis based on the historic  
8 trends, and we assumed for discussion purposes both an increasing and decreasing  
9 migration alternative. The results of our calculations are as follows:

10	<u>Average migration percentage</u>	<u>ES rate</u>
11	29.7%	8.57 cents/kWh ( As filed and proposed )
12	33.7	8.78
13	25.6	8.39

14 PSNH has proposed an ES rate based on the latest known migration value at March 31,  
15 2010 and has not presumed that customers will migrate more or less than what is now  
16 actually known. We recommend that the proposed ES rate be approved, especially in  
17 light of unresolved effects that migration is having on the ES rate for small customers.  
18 We do not believe a higher ES rate than what we have proposed would be appropriate.  
19 However, we would support a lower ES rate than what we have proposed in combination  
20 with a non-bypassable charge that would fairly recover back up supply costs from all  
21 customers.

1        **Summary**

2        **Q.     Does the Commission need to make a determination at this time of the prudence**  
3        **of the costs incurred since January 1, 2010?**

4        A.     No. Prudence will be addressed in the Energy Service Charge reconciliation which has  
5        traditionally been filed in early May following the calendar year when those costs were  
6        incurred and collected.

7        **Q.     Does PSNH propose to implement the new Energy Service rates on a service-**  
8        **rendered basis?**

9        A.     Yes.

10       **Q.     Does PSNH require Commission approval of this rate by a specific date?**

11       A.     Yes. Due to the number of rate components that will change, PSNH requests approval  
12       of the proposed ES rate by June 28 to allow sufficient time to test thoroughly and bill on  
13       our regular schedule without delaying billing for service rendered as of July 1, 2010.  
14       Therefore, PSNH requests that the Commission reopen this proceeding so that the  
15       procedural schedule can be set to review this filing and approve the ES rate in a timely  
16       manner.

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

18       A.     Yes, it does.

1  
2 PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
3 2010 ENERGY SERVICE RATE CALCULATION  
4 (Dollars in 000's)  
5  
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7

8 Traditional Approach

9  
10 Summary of Actual and Forecasted Energy Service

11 Cost For January 2010 Through December 2010	TOTAL COST	Cents per KWH (2)	Reference
12			
13 Fossil energy costs	\$ 165,631	3.01	Attachment RAB-2, page 2
14 F/H O&M, depreciation & taxes	134,936	2.45	Attachment RAB-2, page 2
15 Return on rate base	40,833	0.74	Attachment RAB-2, page 2
16 ISO-NE ancillary	2,738	0.05	Attachment RAB-2, page 2
17 Capacity	16,215	0.29	Attachment RAB-2, page 2
18 NH RPS	10,864	0.20	Attachment RAB-2, page 2
19 RGGI costs	6,807	0.12	Attachment RAB-2, page 2
20 Vermont Yankee	7,243	0.13	Attachment RAB-2, page 2
21 IPP costs (1)	27,310	0.50	Attachment RAB-2, page 2
22 Purchases and sales	77,097	1.40	Attachment RAB-2, page 2
23 Return on ES Deferral	232	0.00	Attachment RAB-2, page 2
24 Merrimack projected O&M insurance proceeds	(4,000)	(0.07)	Attachment RAB-2, page 2
25 Merrimack projected RPC insurance proceeds	(7,800)	(0.14)	Attachment RAB-2, page 2
26 Company Use	(689)	(0.01)	Attachment RAB-2, page 2
27 2009 Actual ES under/(over) recovery	4,442	0.08	Attachment RAB-2, page 2
28			
29 Total Updated Energy Service Cost	\$ 481,857	\$ 8.76	
30 Total Updated Revenue at 8.96 cents per kwh	492,770		
31 Energy Service (Over)/Under Recovery	(10,912)		
32			
33 Forecasted Retail MWH Sales July-December 2010	2,803,750		
34			
35 Decrease in Energy Service Rate - cents per kwh (L31/L33)	(0.39)		
36			
37 Energy Service Rate as approved in DE 09-180 - cents per kwh	\$ 8.96		
38			
39 Updated Energy Service Rate - cents per kwh	\$ 8.57		

(1) The IPP costs represent the forecasted market value of IPP generation.

(2) Cents per KWH was calculated using the 2010 actual and forecasted sales from Attachment RAB-2, page 2, line 34.

Amounts shown above may not add due to rounding.

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PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
2010 ENERGY SERVICE RATE CALCULATION  
(Dollars in 000's)

	January 2010 Actual	February 2010 Actual	March 2010 Actual	April 2010 Estimate	May 2010 Estimate	June 2010 Estimate	Reference
<b>Energy Service Cost</b>							
Fossil energy costs	\$ 17,238	\$ 16,427	\$ 16,134	\$ 12,072	\$ 10,130	\$ 14,287	RAB-2, P3
F/H O&M, depreciation & taxes	10,525	9,974	11,201	16,672	11,595	9,714	RAB-2, P5
Return on rate base	3,509	3,503	3,206	3,453	3,299	3,347	RAB-2, P6
ISO-NE ancillary (inc. Congestion and Loss Adj.)	(591)	124	154	337	301	209	RAB-2, P3
Capacity	2,290	1,673	1,779	1,428	1,428	1,068	RAB-2, P3
NH RPS	994	994	994	803	814	854	RAB-2, P3
RGGI costs	550	528	538	546	547	632	RAB-2, P3
Vermont Yankee	646	563	655	517	341	623	RAB-2, P3
IPP costs (1)	3,743	2,244	2,089	2,431	2,475	1,842	RAB-2, P4
Purchases and sales	9,062	5,537	4,326	5,369	4,784	5,239	RAB-2, P3
Return on ES Deferral	15	18	23	26	27	26	
Merrimack projected O&M insurance proceeds	-	-	-	-	-	-	
Merrimack projected RPC insurance proceeds	-	-	-	-	-	-	
Company Use	-	-	-	-	-	-	
2009 Actual ES under/(over) recovery	4,442	-	-	-	-	-	
<b>Total Energy Service Cost Re-estimate</b>	<b>\$ 52,423</b>	<b>\$ 41,585</b>	<b>\$ 41,099</b>	<b>\$ 43,655</b>	<b>\$ 35,740</b>	<b>\$ 37,842</b>	
Total Energy Service Revenue at 8.96	47,803	39,681	39,333	37,289	37,788	39,659	
ES Under/(Over) Recovery	4,620	1,904	1,766	6,366	(2,048)	(1,817)	
Retail MWH Sales	533,440	442,851	438,928	416,174	421,746	442,622	
Energy Service Cost - cents per kwh	9.83	9.39	9.36	10.49	8.47	8.55	

(1) January 2010 IPP costs include \$305k of ES true-up to actual.

Amounts shown above may not add due to rounding.

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**PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE**  
**2010 ENERGY SERVICE RATE CALCULATION**  
(Dollars in 000's)

	July 2010 Estimate	August 2010 Estimate	September 2010 Estimate	October 2010 Estimate	November 2010 Estimate	December 2010 Estimate	Total	Reference
<b>Energy Service Cost</b>								
Fossil energy costs	\$ 14,763	\$ 15,005	\$ 11,698	\$ 8,156	\$ 14,387	\$ 15,335	\$ 165,631	RAB-2, P3
F/H O&M, depreciation & taxes	10,473	10,038	15,925	9,752	9,230	9,837	134,936	RAB-2, P5
Return on rate base	3,396	3,391	3,381	3,371	3,432	3,546	40,833	RAB-2, P6
ISO-NE ancillary (inc. Congestion and Loss Adj.)	151	176	82	455	665	674	2,738	RAB-2, P3
Capacity	1,068	1,068	1,068	984	984	1,374	16,215	RAB-2, P3
NH RPS	980	975	850	839	839	928	10,864	RAB-2, P3
RGGI costs	653	659	510	339	635	668	6,807	RAB-2, P3
Vermont Yankee	656	640	624	663	648	670	7,243	RAB-2, P3
IPP costs	1,972	1,763	1,440	1,899	2,456	2,954	27,310	RAB-2, P4
Purchases and sales	8,246	7,928	8,139	10,504	3,428	4,534	77,097	RAB-2, P3
Return on ES Deferral	22	17	19	20	16	3	232	
Merrimack projected O&M insurance proceeds	-	-	-	-	-	(4,000)	(4,000)	
Merrimack projected RPC insurance proceeds	-	-	-	-	-	(7,800)	(7,800)	
Company Use	(115)	(115)	(115)	(115)	(115)	(115)	(689)	
2009 Actual ES under/(over) recovery	-	-	-	-	-	-	4,442	
<b>Total Energy Service Cost Re-estimate</b>	<b>\$ 42,267</b>	<b>\$ 41,546</b>	<b>\$ 43,622</b>	<b>\$ 36,868</b>	<b>\$ 36,605</b>	<b>\$ 28,609</b>	<b>\$ 481,857</b>	
<b>Total Energy Service Revenue at 8.96</b>	<b>\$ 45,512</b>	<b>\$ 45,270</b>	<b>\$ 39,451</b>	<b>\$ 38,954</b>	<b>\$ 38,936</b>	<b>\$ 43,093</b>	<b>\$ 492,770</b>	
<b>ES Under/(Over) Recovery</b>	<b>\$ (3,245)</b>	<b>\$ (3,724)</b>	<b>\$ 4,172</b>	<b>\$ (2,086)</b>	<b>\$ (2,330)</b>	<b>\$ (14,485)</b>	<b>\$ (10,912)</b>	
Retail MWH Sales	507,944	505,248	440,297	434,757	434,550	480,954	5,499,511	
Energy Service Cost - cents per kwh	8.32	8.22	9.91	8.48	8.42	5.95	8.76	

Amounts shown above may not add due to rounding.

PUBLIC SERVICE RATE COMPANY OF NEW HAMPSHIRE  
2010 ENERGY SERVICE RATE CALCULATION

PSNH Generation (GWh) and Expense (\$000)  
IPP's Priced at Market Rate

		Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Total	
1												
2	Hydro:	Energy	39,686	37,382	28,327	22,178	19,888	16,457	23,078	32,32	31,206	250,522
3												
4	Coal:	Energy	287,099	287,459	332,076	343,145	343,145	267,834	178,355	333,690	344,813	2,717,616
5		Energy Expense	\$ 11,927	9,663	13,828	14,289	14,289	11,239	7,652	13,899	14,362	111,148
6												
7	Wood:	Energy	8,040	25,885	25,435	26,283	26,283	25,435	27,951	27,050	27,951	220,313
8		Energy Expense	\$ 440	1,416	1,392	1,438	1,438	1,392	1,530	1,480	1,530	12,056
9		Revenue Credit	\$ (295)	(950)	(933)	(964)	(964)	(933)	(1,025)	(992)	(1,025)	(8,083)
10												
11	Nuclear:	Energy	11,86	7,807	14,285	15,029	14,664	14,314	15,207	14,846	15,349	123,361
12		Energy Expense	\$ 517	341	623	656	640	624	663	648	670	5,382
13												
14	Newington:	Energy	0,000	0,000	0,000	0,000	3,200	0,000	0,000	0,000	6,400	9,600
15		Energy Expense	\$ -	-	-	-	242	-	-	-	469	711
16												
17	IPP's:	Energy	57,360	57,254	44,571	42,889	37,866	33,454	42,086	51,937	56,294	423,711
18		Energy Expense	\$ 2,082	2,126	1,695	1,825	1,616	1,293	1,668	2,225	2,723	17,253
19		ICAP	\$ 349	349	147	147	147	147	231	231	231	1,981
20												
21	Peak Purchase:	Energy	3,386	1,123	9,686	40,381	21,275	38,820	47,673	0,040	2,265	164,649
22		Expense	\$ 149	61	543	2,331	1,203	1,747	2,188	3	161	8,386
23												
24	Known Purchases	Energy	82,550	77,403	80,606	77,794	80,194	78,206	79,133	80,150	86,612	722,648
25		Expense	\$ 6,830	6,347	6,729	6,699	6,935	6,493	6,546	6,595	7,164	60,338
26												
27	Offpeak Purchase:	Energy	3,852	5,987	5,305	13,774	20,144	23,702	62,134	1,040	3,751	139,689
28		Expense	\$ 148	230	224	619	897	892	2,345	54	213	5,622
29												
30	Surplus Energy Sales	Energy	(53,437)	(54,009)	(71,908)	(43,967)	(32,006)	(32,300)	(15,558)	(81,233)	(65,695)	(450,113)
31		(Credit)	\$ (1,758)	(1,854)	(2,257)	(1,403)	(1,107)	(993)	(575)	(3,224)	(3,004)	(16,174)
32												
33	Congestion and Loss Adjustment		\$ 23	33	59	1	(2)	(68)	(168)	123	132	133
34												
35	Total Energy GWH		440,396	446,291	468,383	537,506	534,653	465,922	460,059	459,840	508,946	4,321,996
36	Total Energy Expense	\$	20,413	17,763	22,050	25,638	25,334	21,833	21,054	21,042	23,625	198,752
37												
38												
39	ISO-NE Ancillary	\$	313	268	150	150	179	150	623	542	542	2,918
40	NH RPS	\$	803	814	854	980	975	850	839	839	928	7,882
41	RGGI Costs	\$	546	547	632	653	659	510	339	635	668	5,191
42												
43	Capacity (sold)/bought MW-mo		348	348	237	237	237	237	219	219	305	2,389
44	Capacity (sold)/bought Cost (\$000)	\$	1,428	1,428	1,068	1,068	1,068	1,068	984	984	1,374	10,473

Amounts shown above may not add due to rounding.

**PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
2010 ENERGY SERVICE RATE CALCULATION**

**1 Forecasted PSNH IPP Market Value - April - December 2010**

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4	IPP Energy at							
5	Month	IPP GWh	Mkt Value (\$000)	Capacity MW	ICAP Value \$/kw-mo	ICAP (\$000)	Total (\$000)	Total \$/MWh
9	April	57.360	2,082	85.2	4.1	349	2,431	42.38
10	May	57.254	2,126	85.2	4.1	349	2,475	43.23
11	June	44.571	1,695	32.8	4.5	147	1,842	41.34
12	July	42.889	1,825	32.8	4.5	147	1,972	45.99
13	August	37.866	1,616	32.8	4.5	147	1,763	46.57
14	September	33.454	1,293	32.8	4.5	147	1,440	43.06
15	October	42.086	1,668	51.3	4.5	231	1,899	45.12
16	November	51.937	2,225	51.3	4.5	231	2,456	47.28
17	December	56.294	2,723	51.3	4.5	231	2,954	52.47
18	Total	423.711	17,253			1,980	19,233	45.39

Amounts shown above may not add due to rounding.



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PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
2010 ENERGY SERVICE RATE CALCULATION  
Fossil / Hydro O&M, Depreciation & Taxes Detail  
(Dollars in 000's)

	January 2010	February 2010	March 2010	April 2010	May 2010	June 2010	July 2010	August 2010	September 2010	October 2010	November 2010	December 2010	Total
<b>Fossil / Hydro O&amp;M, Depr. &amp; Taxes</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>	
F/H Operation & Maintenance Cost	\$ 7,812	\$ 7,297	\$ 8,418	\$ 13,974	\$ 8,948	\$ 6,918	\$ 7,694	\$ 7,353	\$ 13,126	\$ 7,083	\$ 6,595	\$ 7,026	\$ 102,244
F/H Depreciation Cost	1,752	1,750	1,753	1,770	1,772	1,773	1,789	1,790	1,792	1,797	1,794	1,831	21,363
F/H Property Taxes	720	720	773	723	723	723	723	723	723	723	723	723	8,720
F/H Payroll Taxes	205	171	194	205	152	187	267	172	168	149	118	139	2,127
Amort. of Asset Retirement Obligation	36	36	63	-	-	113	-	-	116	-	-	118	482
<b>Total F/H O&amp;M, Depr. and Taxes</b>	<b>\$ 10,525</b>	<b>\$ 9,974</b>	<b>\$ 11,201</b>	<b>\$ 16,672</b>	<b>\$ 11,595</b>	<b>\$ 9,714</b>	<b>\$ 10,473</b>	<b>\$ 10,038</b>	<b>\$ 15,925</b>	<b>\$ 9,752</b>	<b>\$ 9,230</b>	<b>\$ 9,837</b>	<b>\$ 134,936</b>

Amounts shown above may not add due to rounding.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
2010 ENERGY SERVICE RATE CALCULATION  
FOSSIL/HYDRO RETURN ON RATE BASE  
(Dollars in 000's)

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	January 2010 Actual	February 2010 Actual	March 2010 Actual	April 2010 Estimate	May 2010 Estimate	June 2010 Estimate	July 2010 Estimate	August 2010 Estimate	September 2010 Estimate	October 2010 Estimate	November 2010 Estimate	December 2010 Estimate	Total
<b>Return on Rate Base</b>													
<b>Rate base</b>													
Net Plant	283,340	283,340	277,517	278,598	278,480	282,773	281,837	281,035	281,702	281,655	295,480	304,837	
Working Capital Allow. (45 days of O&M)	11,347	11,347	11,347	12,605	12,605	12,605	12,605	12,605	12,605	12,605	12,605	12,605	12,605
Fossil Fuel Inventory	81,748	81,748	65,480	62,000	62,000	62,000	62,000	62,000	62,000	62,000	62,000	62,000	62,000
Mat'ls and Supplies	53,616	53,616	53,762	53,548	53,667	53,885	53,937	54,001	54,164	54,221	54,403	54,873	
Prepayments	2,428	2,428	2,292	1,789	1,789	1,789	1,789	1,789	1,789	1,789	1,789	1,789	1,789
Deferred Taxes	(20,454)	(20,454)	(18,780)	(18,032)	(18,270)	(21,748)	(20,591)	(19,121)	(20,487)	(20,105)	(18,856)	(16,535)	
Other Regulatory Obligations	(12,409)	(12,409)	(15,521)	(17,628)	(18,480)	(7,606)	(8,665)	(9,705)	(11,055)	(11,946)	(12,846)	(13,643)	
<b>Total Rate Base (L15 thru L22)</b>	<b>399,616</b>	<b>399,616</b>	<b>376,097</b>	<b>372,880</b>	<b>371,791</b>	<b>383,698</b>	<b>382,912</b>	<b>382,604</b>	<b>380,718</b>	<b>380,219</b>	<b>394,575</b>	<b>405,926</b>	
Average Rate Base (prev + curr month)	400,326	399,616	387,857	389,724	372,336	377,745	383,305	382,758	381,661	380,469	387,397	400,251	
x Return	0.8765%	0.8765%	0.8765%	0.8860%	0.8860%	0.8860%	0.8860%	0.8860%	0.8860%	0.8860%	0.8860%	0.8860%	0.8860%
<b>Return (L25 x L26)</b>	<b>\$ 3,509</b>	<b>\$ 3,503</b>	<b>\$ 3,206</b>	<b>\$ 3,453</b>	<b>\$ 3,299</b>	<b>\$ 3,347</b>	<b>\$ 3,396</b>	<b>\$ 3,391</b>	<b>\$ 3,381</b>	<b>\$ 3,371</b>	<b>\$ 3,432</b>	<b>\$ 3,546</b>	<b>\$ 40,833</b>

Amounts shown above may not add due to rounding.

<b>ORIGINAL</b>	
N.H.P.U.C. Case No.	DE 09-180
Exhibit No.	Part 2b # 23
Witness	
DO NOT REMOVE FROM FILE	

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

Public Service Company of New Hampshire  
Energy Service Rate Mid-year Adjustment

Docket No. DE 09-180

Joint Technical Statement of Robert A. Baumann and Frederick B. White

The actual Energy Service ("ES") under recovery through March 2010 is \$2.9 million greater than the original forecast, primarily due to higher customer migration level. The projected ES over recovery for the balance of the year, April through December 2010, is now forecasted to be \$13.8 million greater than currently reflected in rates. The principal reasons for this over recovery are lower costs as detailed below including lower delivered price of coal, lower forward electricity prices, lower F/H O&M and lower return on rate base.

The following notes identify where changes have occurred and details are provided as appropriate. Notes 1 through 16 address the forecast period expenses which decreased by \$22.4 million. Note 17 addresses the forecast period revenues which decreased by \$8.6 million. As a result of these changes, April through December 2010 shows a net over recovery of \$13.8 million.

The total over recovery for 2010 is now projected to be \$10.9 million (\$2.9 million actual under recovery through March 2010 plus the \$13.8 million forecasted over recovery), resulting in an updated ES rate of 8.57 cents per kWh from July through December 2010.

1. Hydro output is lower by 2.4 GWh reflecting updated 20 year averages.
2. Coal costs are lower by \$3.0 million and coal generation output is higher by 30.3 GWh. \$2.3 million of lower costs is due to a credit book-out from a supplier for a non-delivery of prior scheduled coal delivery. An additional \$0.7 million (net) is due to lower coal prices at Merrimack 1, Schiller 4, and Schiller 6, partially offset by higher prices at Merrimack 2. The higher generation at Merrimack 2 is due to the higher output of MK2 as the result of the new HP/IP turbine.
3. REC revenue earned by Schiller 5 is lower by \$0.2 million reflecting a downward REC price adjustment.
4. Newington fuel costs are lower by \$2.7 million and generation is lower by 39.6 GWh. In addition to the 9.6 GWh of Newington output modeled during the April – December, 2010 period (reflective of current forward electricity market prices), Newington continues to serve as a physical hedge against

high energy prices caused by abnormal system conditions such as extreme weather and / or high unit outages. The table below shows the forward electricity market prices used in the December, 2009 rates, current values for April through December, 2010, and the change for each month.

**Forward Electricity Prices and Changes Between  
December 2009 and April 2010 Forecasts  
(\$/MWh)**

	Dec-09		Apr-10		Change	
	<u>Peak</u>	<u>Off-peak</u>	<u>Peak</u>	<u>Off-peak</u>	<u>Peak</u>	<u>Off-peak</u>
Apr-10	54.50	43.10	40.79	32.08	-13.71	-11.02
May-10	52.30	41.38	41.81	33.30	-10.49	-8.08
Jun-10	55.15	41.05	43.33	33.17	-11.82	-7.88
Jul-10	66.11	46.37	49.69	36.38	-16.42	-9.99
Aug-10	57.98	46.64	49.69	36.38	-8.29	-10.26
Sep-10	54.84	42.20	44.13	34.02	-10.71	-8.18
Oct-10	55.52	43.79	44.60	35.13	-10.92	-8.66
Nov-10	58.89	46.29	48.40	38.13	-10.49	-8.16
Dec-10	68.74	53.74	54.03	43.30	-14.71	-10.44

5. IPP costs “at market” are lower by \$4.4 million reflecting lower forward electricity market prices, while volumes remain the same.
6. Peak and off-peak purchases costs are lower by \$6.2 million and volumes are lower by 57 GWh. Surplus energy sales revenues are higher by \$1.6 million and volumes are higher by 50 GWh. Additionally, congestion and loss adjustment is lower by \$0.2 million. These changes are a result of lower ES loads due to additional migration, the net changes in generation and other purchased resources (addressed as separate items herein), and forward market price changes. Changes in forward electricity market prices are shown above, and changes in sales forecast due to migration are shown below.
7. Known purchase costs are lower by \$0.3 million and volume decreased 2.4 GWh. The changes are primarily attributable to correctly recognizing July 5<sup>th</sup> as a NERC holiday, thus it is considered an off-peak period, and the associated price and MWh effects. Market price changes also contribute to the cost change because the Lempster purchase is partly tied to market prices.
8. Total ES sales are lower by 96 GWh. The table below shows the forecasted sales and migration (Non-ES sales) used for calculating the current ES rate and for the update. For consistency with rate setting, values are shown as measured at the customer meter. The amount of migration modeled in the update is as of March, 2010 and is about 30% of forecasted total PSNH sales. Overall, April through December 2010 sales are lower by 2.3% from the estimate which was used for calculating the current ES Rate.

### Changes to PSNH ES Sales Forecast

	<u>December 2009 Rate (MWh)</u>			<u>April 2010 Update (MWh)</u>			<u>Change From December 2009 (MWh)</u>			<u>% ES Sales Change</u>
	<u>PSNH Sales</u>	<u>Non-ES Sales</u>	<u>ES Sales</u>	<u>PSNH Sales</u>	<u>Non-ES Sales</u>	<u>ES Sales</u>	<u>PSNH Sales</u>	<u>Non-ES Sales</u>	<u>ES Sales</u>	
Apr-10	591,690	172,692	418,998	591,690	175,516	416,174	0	2,824	(2,824)	-0.7%
May-10	599,611	175,621	423,990	599,611	177,865	421,746	0	2,245	(2,245)	-0.5%
Jun-10	629,292	179,873	449,419	629,292	186,670	442,622	0	6,797	(6,797)	-1.5%
Jul-10	722,162	195,057	527,105	722,162	214,218	507,944	0	19,161	(19,161)	-3.6%
Aug-10	718,329	200,909	517,420	718,329	213,081	505,248	0	12,172	(12,172)	-2.4%
Sep-10	625,986	178,113	447,873	625,986	185,689	440,297	0	7,576	(7,576)	-1.7%
Oct-10	618,109	174,733	443,376	618,109	183,352	434,757	0	8,620	(8,620)	-1.9%
Nov-10	617,816	169,399	448,417	617,816	183,266	434,550	0	13,866	(13,866)	-3.1%
Dec-10	683,790	179,842	503,948	683,790	202,836	480,954	0	22,993	(22,993)	-4.6%
Subtotal	5,806,785	1,626,239	4,180,546	5,806,785	1,722,492	4,084,293	0	96,253	(96,253)	-2.3%

9. Reserve market costs are lower by \$0.2 million, reflecting the net of lower forecasted revenues (\$0.1 million), and lower reserve costs (\$0.3 million) due to lower ES loads.
10. RPS costs are lower by \$0.5 million reflecting lower ES loads.
11. Capacity costs are lower by \$2.1 million resulting from lower capacity obligations due to increased migration, which lowers the ES peak load share that is the allocator of capacity obligations.
12. Miscellaneous expenses, including ISO-NE administration, load and demand response, and MCI/Worldcom/GIS, are lower by \$0.2 million reflecting an update based on a more current review period.
13. Regulation costs are lower by \$0.3 million reflecting an update based on a more current review period and lower ES loads.
14. ARR revenues are lower by \$0.9 million reflecting an update based on a more current review period and lower ES loads.
15. The net F/H O&M and return on rate base are lower by \$4.4 million in the April through December 2010 forecasted period. The F/H O&M, Depreciation, and Taxes are lower by \$1.8 million primarily due to lower ammonia costs. The return on rate base also decreased by \$2.6 million as a result of lower updated rate base caused by lower fossil fuel inventory and net plant and a lower return rate.

16. Distribution related company use for the July-December 2010 has been removed which decreased costs by \$0.7 million.
17. The updated ES revenues decreased by \$8.6 million due to additional customer migration.