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

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# 8 Traditional Approach

9 Summary of Forecasted Energy Service

10	Summary of Forecasted Energy Service				
11	Cost For January 2010 Through December 2010	TOT	AL COST	Cents per KWH	Reference
12					
13	Fossil energy costs	\$	166,979	\$ 2.97	Attachment RAB-2, page 2
14	F/H O&M, depreciation & taxes		140,129	2.49	Attachment RAB-2, page 2
15	Return on rate base		44,262	0.79	Attachment RAB-2, page 2
	ISO-NE ancillary		5,205	0.09	Attachment RAB-2, page 2
17	Capacity		17,986	0.32	Attachment RAB-2, page 2
	NH RPS		11,313	0.20	Attachment RAB-2, page 2
19	RGGI costs		7,040	0.13	Attachment RAB-2, page 2
	Vermont Yankee		7,397	0.13	Attachment RAB-2, page 2
21	IPP costs (1)		29,993	0.53	Attachment RAB-2, page 2
	Purchases and sales		93,768	1.67	Attachment RAB-2, page 2
23	Return on ES Deferral		71	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					
27	Total Forecasted Energy Service Cost	\$	512,343	\$ 9.10	
28					
29	2009 ES Over/Under Recovery		6,294	0.11	Attachment RAB-3, page 1
30					
	Net Forecasted Energy Service Cost	\$	518,637		
32					
33	Forecasted Retail MWH Sales		5,630,709	9.21	
34					
35					
36	Forecasted Energy Service Rate -				
37	cents Per KWH (line 32 / Line 34)	\$	9.21		

## ES Rate Under Method 2 as proposed in PSNH's 11/23/09 testimony (2)

39	Net Forecasted Energy Service Cost (Line 32)	\$ 518,637
40	Less: Bio Energy Above Market costs Less: Reliability costs for VAR support	 12,507 1,420
41	Total Forecasted Energy Service Cost	504,710
42	Forecasted Retail MWH Sales (line 34)	5,630,709
43	Alternate Energy Service Rate	\$ 8.96

- 44 (1) The IPP costs represent the forecasted market value of IPP generation.
- 45 (2) Consistent with the testimonies of R.A. Baumann of 11/23/09 and S.E.Mullen of 12/2/09 regarding certain costs which could be shifted to other rate components, PSNH has removed the above market Bio-Energy replacement costs and reliability costs for VAR support from Energy Service.

  Company use costs related to Energy Service are proposed to be removed effective 7/1/10 in conjunction with the Distribution segment rate change.
- 48 For informational purposes only, PSNH has calculated a "no migration" (method 1) ES rate as discussed in R. A. Baumann testimony filed on 11/23/09. This "no migration" ES rate is 8.47 cents/kWh or 0.49 cents/kWh lower then the Alternate ES rate of 8.96 cents/kWh.

Page 1

1 2 3				RGY SERV	/ICE	NY OF NE			RE					
4				(Dolla	ars i	n 000's)								
5														
6														
7														
8	J	anuary	F	ebruary		March		April		Мау		June		
9		2010		2010		2010		2010		2010		2010		
10 Energy Service Cost		stimate	Е	stimate	Ε	Stimate	Е	Stimate	Е	stimate	Е	stimate	Reference	
11														
12 Fossil energy costs	\$	17,092	\$	15,049	\$	13,473	\$	12,040	\$	12,454	\$	14,362	RAB-2, P3	
13 F/H O&M, depreciation & taxes		10,063		9,428		15,579		16,693		11,088		10,812	RAB-2, P5	
14 Return on rate base		3,727		3,692		3,639		3,608		3,622		3,665	RAB-2, P6	
15 ISO-NE ancillary (inc. Congestion and Loss Adj.)		405		354		356		398		327		627	RAB-2, P3	
16 Capacity		1,890		1,890		1,594		1,594		1,594		1,328	RAB-2, P3	
17 NH RPS		1,047		935		931		842		852		903	RAB-2, P3	
18 RGGI costs		699		619		588		531		532		616	RAB-2, P3	
19 Vermont Yankee		674		631		674		521		343		627	RAB-2, P3	
20 IPP costs (1)		3,712		2,734		2,776		2,820		2,696		1,969	RAB-2, P4	
21 Purchases and sales		5,342		6,115		6,832		6,595		6,046		6,765	RAB-2, P3	
22 Return on ES Deferral		3		(7)		(5)		4		10		11		
23 Merrimack projected O&M insurance proceeds		-		-		-		-		-		-		
24 Merrimack projected RPC insurance proceeds		-		_		-		-		-		_		
25														
26 Total Energy Service Cost 27	\$	44,653	\$	41,442	\$	46,435	\$	45,646	\$	39,565	\$	41,684		
28 Forecasted Retail MWH Sales 29		521,345		465,338		463,480		418,998		423,990		449,419		
30 Energy Service Cost - cents per kwh		8.56		8.91		10.02		10.89		9.33		9.28		

<sup>(1)</sup> The IPP costs represent the forecasted market value of IPP generation.

Page 2

1 PL	JBLI	C SERVIC	E C	OMPANY	OF	NEW HAN	/IPS	HIRE							
2	201	ENERG	Y SI	ERVICE R.	ATE	CALCUL	ATI	ON							
3			(D	ollars in 0	00's	s)									
4															
5															
6															
7															
8		July		August	S	eptember	1	October	Ν	ovember	D	ecember			
9		2010		2010		2010		2010		2010		2010			
10 Energy Service Cost	E	stimate	E	Estimate	E	Estimate	E	Estimate	E	Estimate	E	Estimate		Total	Reference
11															
12 Fossil energy costs	\$	18,299	\$	14,840	\$	11,806	\$	8,310	\$	14,387	\$	14,868	\$	166,979	RAB-2, P3
13 F/H O&M, depreciation & taxes		10,505		10,181		15,302		10,227		9,846		10,403		140,129	RAB-2, P5
14 Return on rate base		3,675		3,664		3,689		3,713		3,752		3,817		44,262	RAB-2, P6
15 ISO-NE ancillary (inc. Congestion and Loss Adj.)		631		529		468		150		488		471		5,205	RAB-2, P3
16 Capacity		1,328		1,328		1,328		1,244		1,244		1,623		17,986	RAB-2, P3
17 NH RPS		1,059		1,040		900		891		901		1,012		11,313	RAB-2, P3
18 RGGI costs		729		636		497		333		619		640		7,040	RAB-2, P3
19 Vermont Yankee		660		644		629		668		652		674		7,397	RAB-2, P3
20 IPP costs (1)		2,184		1,780		1,452		1,987		2,611		3,271		29,993	RAB-2, P4
21 Purchases and sales		8,029		10,939		10,595		13,407		5,291		7,813		93,768	RAB-2, P3
22 Return on ES Deferral		10		7		10		14		13		1		71	
23 Merrimack projected O&M insurance proceeds		-		-		-		-		-		(4,000)		(4,000)	
24 Merrimack projected RPC insurance proceeds		-		-		_		-		-		(7,800)		(7,800)	
25															
26 Total Energy Service Cost	\$	47,110	\$	45,590	\$	46,677	\$	40,944	\$	39,804	\$	32,793	\$	512,343	
27															
28 Forecasted Retail MWH Sales		527,105		517,420		447,873		443,376		448,417		503,948	5	6,630,709	
29															
30 Energy Service Cost - cents per kwh		8.94		8.81		10.42		9.23		8.88		6.51		9.10	

<sup>(1)</sup> The IPP costs represent the forecasted market value of IPP generation.

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

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

1			Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Total
2	Hydro:	Energy	31.766	27.28	35.147	40.26	38.066	28.616	21.572	19.5	17.124	23.635	32.697	31.471	347.134
4	Coal:	Energy	340.974	306.091	313.475	283.281	283.620	328.360	339.306	339.306	264.999	177.524	329.975	340.974	3,647.885
5 6		Energy Expense	\$ 14,385	12,897	12,990	11,902	12,008	13,923	14,387	14,387	11,367	7,827	13,921	14,385	154,379
7	Wood:	Energy	27.951	25.246	27.951	8.002	25.885	25.435	26.283	26.283	25.435	27.951	27.050	27.951	301.423
8		Energy Expense	\$ 1,530	1,381	1,530	438	1,416	1,392	1,438	1,438	1,392	1,530	1,480	1,530	16,494
9 10		Revenue Credit	\$ (1,047)	(946)	(1,047)	(300)	(970)	(953)	(985)	(985)	(953)	(1,047)	(1,014)	(1,047)	(11,294)
11	Nuclear:	Energy	15.349	14.374	15.334	11.86	7.807	14.285	15.029	14.664	14.314	15.207	14.846	15.349	168.418
12 13		Energy Expense	\$ 674	631	674	521	343	627	660	644	629	668	652	674	7,397
14	Newington:	Energy	31.600	24.000	0.000	0.000	0.000	0.000	49.200	0.000	0.000	0.000	0.000	0.000	104.800
15 16		Energy Expense	\$ 2,224	1,717	-	-	-	-	3,459	-	-	-	-	-	7,400
	IPP's:	Energy	55.338	41.653	49.698	51.040	50.933	38.251	36.569	31.546	27.134	35.766	45.617	49.974	513.519
18		Energy Expense	\$ 3,363	2,385	2,427	2,471	2,347	1,822	2,037	1,633	1,305	1,756	2,380	3,040	26,966
19 20		ICAP	\$ 349	349	349	349	349	147	147	147	147	231	231	231	3,027
21	Peak Purchase:	Energy	5,170	3.694	3.449	5.069	1.601	13.829	20.160	31.210	43.911	51.613	1.375	9.281	190.362
22 23		Expense	\$ 364	248	206	280	85	792	1,272	2,028	2,456	2,903	97	739	11,470
24	Known Purchases	Energy	87.071	82.692	91.593	88.871	83.723	86.927	86.514	86.514	84.527	85.454	86.471	92.932	1,043.289
25 26		Expense	\$ 8,115	7,827	8,407	8,147	7,666	8,131	8,352	8,343	7,897	7,949	8,004	8,596	97,434
	Offpeak Purchase:	Energy	16.314	13.969	7.660	6.286	10.001	7.002	21.835	27.740	28.724	67.441	4.212	9.818	221.002
28 29		Expense	\$ 1,058	888	410	320	484	366	1,279	1,623	1.382	3,166	260	672	11,908
	Surplus Energy Sales	Energy	(57.662)	(44.539)	(51.760)	(49.220)	(50.870)	(64.978)	(56.353)	(26.828)	(30.099)	(13.320)	(65.703)	(42.322)	(553.654)
31 32		(Credit)	\$ (4,195)	(2,848)	(2,191)	(2,152)	(2,189)	(2,524)	(2,874)	(1,055)	(1,140)	(611)	(3,070)	(2,194)	(27,044)
	Congestion and Loss Adjustment		\$ 166	115	87	61	58	85	90	(12)	(73)	(196)	142	125	648
	Total Energy GWH		553.871	494.460	492.547	445.449	450.766	477.727	560.115	549.935	476.069	471.271	476.540	535.428	5,984.178
36 37	Total Energy Expense		\$ 26,985	24,645	23,841	22,037	21,597	23,808	29,263	28,192	24,409	24,175	23,083	26,751	298,785
38	ISO-NE Ancillary		\$ 239	239	269	336	269	542	542	542	542	346	346	346	4,557
	NH RPS		\$ 1,047	935	931	842	269 852	903	1.059	1,040	900	346 891	346 901	1,012	4,557 11,313
41	RGGI Costs		\$ 699	619	588	531	532	616	729	636	497	333	619	640	7,040
42 43	Capacity (sold)/bought MW-mo		461	461	389	389	389	295	295	295	295	277	277	361	4,183
44	Capacity (sold)/bought Cost (\$000)		\$ 1,890	1,890	1,594	1,594	1,594	1,328	1,328	1,328	1,328	1,244	1,244	1,623	17,986

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

# Forecasted PSNH IPP Market Value - January - December 2010

2								
3		II	PP Energy at					
4		IPP	Mkt Value	Capacity	ICAP Value	ICAP	Total	Total
5	Month	GWh	(\$000)	MW	\$/kw-mo	(\$000)	(\$000)	\$/MWh
6	January	55.338	3,363	85.2	4.1	349.0	3,712	67.08
7	February	41.653	2,385	85.2	4.1	349.0	2,734	65.64
8	March	49.698	2,427	85.2	4.1	349.0	2,776	55.86
9	April	51.040	2,471	85.2	4.1	349.0	2,820	55.25
10	May	50.933	2,347	85.2	4.1	349.0	2,696	52.93
11	June	38.251	1,822	32.8	4.50	147.5	1,969	51.49
12	July	36.569	2,037	32.8	4.50	147.5	2,184	59.74
13	August	31.546	1,633	32.8	4.50	147.5	1,780	56.44
14	September	27.134	1,305	32.8	4.50	147.5	1,452	53.53
15	October	35.766	1,756	51.3	4.50	230.7	1,987	55.55
16	November	45.617	2,380	51.3	4.50	230.7	2,611	57.23
17	December	49.974	3,040	51.3	4.50	230.7	3,271	65.45
18	Total	513.519	26,966			3,027	29,993	58.41

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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)

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8 9 10 11 <u>Fossil / Hydro O&amp;M, Depr. &amp; Taxes</u>		anuary 2010 stimate	ebruary 2010 stimate		March 2010 stimate	E	April 2010 Stimate	E	May 2010 Estimate	E	June 2010 stimate	E	July 2010 stimate	August 2010 st mate	ptember 2010 stimate	October 2010 stimate	ovember 2010 stimate	ecember 2010 stimate	Total
12	•	<b></b>		_										 	 			 	
13 F/H Operation & Maintenance Cost	\$	7,442	\$ 6,819	\$	12,711	\$	14,043	\$	8,379	\$	8,051	\$	7,832	\$ 7,531	\$ 12,533	\$ 7,459	\$ 7,168	\$ 7,576	\$ 107,544
14 F/H Depreciation Cost		1,776	1,776		1,777		1,777		1,780		1,794		1,796	1,796	1,799	1,825	1,825	1,849	21,570
15 F/H Property Taxes		688	688		688		734		734		734		734	734	734	734	734	734	8.673
16 F/H Payroll Taxes		157	145		292		139		195		119		144	120	120	209	119	126	1.884
17 Amort. of Asset Retirement Obligation		_	-		111		-		-		113		_		116			118	
18							*******							 74	 			 110	
19 Total F/H O&M, Depr. and Taxes	\$	10,063	\$ 9,428	\$	15,579	\$	16,693	\$	11,088	\$	10,812	\$	10,505	\$ 10,181	\$ 15,302	\$ 10,227	\$ 9,846	\$ 10,403	\$ 140,129

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## 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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8 9 10 11 12	Return on Rate Base	January 2010 Estimate	February 2010 Estimate	March 2010 Estimate	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
	Rate base													
	Net Plant	286,383	284,841	283,593	283,714	288,499	287,484	286,088	285,513	295,458	294,171	303,317	306,699	
17	Working Capital Allow. (45 days of O&M)	13,259	13,259	13,259	13,259	13,259	13,259	13.259	13,259	13,259	13,259	13,259	13,259	
18	Fossil Fuel Inventory	80,868	76,713	75,776	75,816	75,876	72,701	72,806	72,893	72,981	73,068	73,191	73,331	
19	Mat'ls and Supplies	54,673	54,699	54,773	54,866	55,094	55,331	55,383	55,454	55,554	55,607	55.709	56,061	
20	Prepayments	376	376	376	376	376	376	376	376	376	376	376	376	
21	Deferred Taxes	(12,683)	(13,322)	(13,875)	(15,598)	(13,799)	(16,675)	(15,086)	(14,085)	(16,173)	(15,136)	(13,540)	(11,729)	
22	Other Regulatory Obligations	(20,269)	(21,487)	(22,872)	(24,015)	(25,169)	(14,865)	(16,503)	(18,128)	(19,653)	(20,869)	(22,089)	(23,550)	
	Total Rate Base (L15 thru L22)	402,607	395,079	391,030	388,417	394.136	397,610	396,322	395,282	401,802	400,476	410,223	414,447	
24														
25	Average Rate Base ( prev + curr month)	402,607	398,843	393,054	389,724	391,276	395,873	396,966	395,802	398,542	401,139	405,349	412,335	
26	x Return	0.9257%	0.9257%	0.9257%	0.9257%	0.9257%	0.9257%	0.9257%	0.9257%	0.9257%	0.9257%	0.9257%	0.9257%	
27	Return (L25 x L26)	\$ 3,727	\$ 3,692	3,639	3,608	\$ 3,622 \$	3,665	\$ 3,675	3,664	\$ 3,689	\$ 3,713	\$ 3,752	\$ 3,817	\$ 44,262

Page 1

1	PUBLIC SERVICE CO	MPANY OF NE	W HAMPSHIRE		
2	ENERGY SERVI	ICE RATE CAL	CULATION		
3	(Dol	llars in 000's)			
4					
5					
6					
7					
8					
9	Summary of Forecasted Energy Service				
10	Cost For January 2009 Through December 2009	TOT	AL COST	Reference	
11					
12	Fossil energy costs	\$	146,405	Attachment RAB-3, page 2B	
13	F/H O&M, depreciation & taxes		136,646	Attachment RAB-3, page 2B	
14	Return on rate base		42,933	Attachment RAB-3, page 2B	
15	Seabrook costs/(credits)		(303)	Attachment RAB-3, page 2B	
	ISO-NE ancillary		4,548	Attachment RAB-3, page 2B	
17	Capacity		27,982	Attachment RAB-3, page 2B	
18	NH RPS		9,633	Attachment RAB-3, page 2B	
19	RGGI costs		6,928	Attachment RAB-3, page 2B	
20	Vermont Yankee		7,391	Attachment RAB-3, page 2B	
21	IPP costs		22,066	Attachment RAB-3, page 2B	
22	Purchases and sales		247,861	Attachment RAB-3, page 2B	
23	Merrimack projected RPC insurance proceeds		-	Attachment RAB-3, page 2B	
24	Return on ES deferral		(478)	Attachment RAB-3, page 2B	
25	2008 actual ES under/(over) recovery		(41,475)	Attachment RAB-3, page 2B	
26		\$	610,137	Attachment RAB-3, page 2B	
27	Total Estimated Revenue		603,844	Attachment RAB-3, page 2B	
		_			
28	2008 Energy Service Estimated Under/(Over) Recovery		6,294		

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

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7		Actual	Δ	ctual	Actual	Actual	Actual	Actual	
8		January	Fe	ebruary	March	April	May	June	
9	Energy Service Cost	 2009		2009	 2009	2009	2009	2009	Reference
10									
11	Fossil energy costs	\$ 24,336	\$	15,179	\$ 17,189	\$ 13,637	\$ 12,500	\$ 14,200	
12	F/H O&M, depreciation & taxes	11,748		9,116	10,227	12,431	9,625	9,603	RAB-3, P5
13	Return on rate base	3,516		3,507	3,487	3,509	3,509	3,507	RAB-3, P6
14	Seabrook costs/(credits)	-		-	-	-	-	(208)	
15	ISO-NE ancillary	461		782	727	616	448	470	
16	Capacity	3,525		3,143	3,028	2,812	2,589	2,891	
17	NH RPS	988		988	988	988	884	164	
18	RGGI costs	771		626	681	628	619	562	
19	Vermont Yankee	635		581	590	626	630	548	
20	IPP costs (1)	3,708		1,445	2,139	2,154	1,754	1,258	
21	Purchases and sales	16,598		17,924	17,481	19,988	15,547	18,893	
22	Return on ES deferral	(69)		(58)	(58)	(55)	(53)	(48)	
23	Merrimack projected RPC insurance proceeds	-		-	-		-	` -	
24	2008 actual ES under/(over) recovery (2)	 (41,475)		-	 _	 		**	
25	Total Energy Service Cost	\$ 24,742	\$	53,233	\$ 56,479	\$ 57,334	\$ 48,050	\$ 51,840	
26	Total Energy Service Revenue (3)	\$ 69,283	\$	55,110	\$ 56,133	\$ 49,585	\$ 48,311	\$ 48,557	
27	ES Under/ (Over) Recovery	\$ (44,541)	\$	(1,877)	\$ 346	\$ 7,749	\$ (261)	\$ 3,283	
28	Retail MWH Sales	706,849		548,954	566,142	500,446	487,320	489,306	

<sup>(1)</sup> The IPP costs represent the actual and forecasted market value of IPP generation. January 2009 also relects the 2008 annual ES true up of \$210 thousand.

<sup>(2)</sup> See PSNH May 1, 2009 Annual Reconciliation filing in DE 09-091, Attachment RAB-4, page 6.

<sup>(3)</sup> The ES rate was set at \$0.0992 per KWH from January through July 30, 2009. The ES rate was reset to its current rate of \$0.0903 per KWH effective August 1, 2009.

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

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6													
/ 8	Actual	Actual		Actual	Acti			e-estimate	R	Re-estimate			
9 Energy Service Cost	July	August	S	September	Octo		1	November		December			
10	 2009	2009		2009	200	9		2009		2009		Total	Reference
11 Fossil energy costs (1)	\$ 13,585	\$ 3,072	S	5,720	s	7,899	\$	5,500	\$	13,588	s	146 405	RAB-3, P3 (5)
12 F/H O&M, depreciation & taxes	16,627	10,511	•	4.252		11.801	•	16,366	•	14,341	Ψ		RAB-3, P5
13 Return on rate base	3,578	3,578		3.669		3,648		3,648		3,778			RAB-3, P6
14 Seabrook costs/(credits)	-	-		(95)				-		-			RAB-3, P3 (5)
15 ISO-NE ancillary	223	(17)		(77)		118		290		508		, ,	RAB-3, P3 (5)
16 Capacity	1,391	1,833		1,662		1,477		1,680		1,950			RAB-3, P3 (5)
17 NH RPS	594	809		843		843		736		807			RAB-3, P3 (5)
18 RGGI costs	606	481		446		474		265		770			RAB-3, P3 (5)
19 Vermont Yankee	639	613		598		652		628		650		7,391	RAB-3, P3 (5)
20 IPP costs (2)	1,796	1,769		953		1,256		1,569		2,266		22,066	RAB-3, P3 (5)
21 Purchases and sales	19,108	28,492		26,894	:	27,275		23,539		16,121		247,861	RAB-3, P3 (5)
22 Return on ES deferral	(43)	(43)		(40)		(24)		(4)		17		(478)	. , ,
23 Merrimack projected RPC insurance proceeds (6)	-	_		-		-		`-'		-			
24 2008 actual ES under/(over) recovery (3)	 · -	 -		-		-				-		(41,475)	-
25 Total Energy Service Cost	\$ 58,105	\$ 51,098	\$	44,825	\$	55,419	\$	54,216	\$	54,796	\$	610,137	
26 Total Energy Service Revenue (4)	\$ 53,485	\$ 55,032	\$	39,226	\$	40,328	\$	42,367	\$	46,428	\$	603,844	
27 Total Energy Service Under/ (Over) Recovery	\$ 4,621	\$ (3,934)	\$	5,599	\$	15,091	\$	11,849	\$	8,368	\$	6,294	
28 Retail MWH Sales	539,102	593,947		450,879	4	46,954		469,177		514,148		6,313,224	

<sup>29 (1)</sup> August reflects \$5 million physical inventory adjustment for Merrimack coal.

<sup>30 (2)</sup> The IPP costs represent the actual and forecasted market value of IPP generation.

<sup>31 (3)</sup> See PSNH May 1, 2009 Annual Reconciliation filing in DE 09-091, Attachment RAB-4, page 6.

<sup>32 (4)</sup> The ES rate was set at \$0.0992 per KWH from January through July 30, 2009. The ES rate was reset to its current rate of \$0.0903 per KWH effective August 1, 2009.

<sup>33 (5)</sup> Supporting detail for re-estimate data only.

<sup>34 (6)</sup> No RPC insurance proceeds are anticipated until 2010.

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

2 3 4

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

5 6

7				Nov 09	Dec 09	Total
8	Hydro:	Energy		32.325	31.009	63.334
9 10	Coal:	Energy		104.959	305.133	410.092
11 12		Energy Expense	\$	4,922	12,991	17,913
13	Wood:	Energy		27.540	28.458	55.998
14		Energy Expense	\$	1,595	1,648	3,243
15 16		Revenue Credit	\$	(1,017)	(1,051)	(2,068)
17	Nuclear:	Energy		14.846	15.349	30.195
18 19		Energy Expense	\$	628	650	1,278
20	Newington:	Energy		0.000	0.000	0.000
21 22		Energy Expense	\$	-	-	-
23	IPP's:	Energy		34.052	38.403	72.455
24		Energy Expense	\$	1,220	1,917	3,137
25 26		ICAP	\$	349	349	698
27	Peak Purchase:	Energy		7.734	19.041	26.775
28 29		Expense	\$	359	1,154	1,513
30	Known Purchases	Energy		295.336	158.973	454.309
31 32		Expense	\$	23,728	17,055	40,783
33	Offpeak Purchase:	Energy		7.897	7.699	15.596
34 35		Expense	\$	322	407	729
36	Surplus Energy Sale			(28.058)	(57.053)	(85.111)
37 38		(Credit)	\$	(870)	(2,495)	(3,365)
39	Total Energy GWH			496.631	547.012	1,043.643
40 41	Total Energy Expens	se	\$	31,236	32,625	63,861
42 43	ISO-NE Ancillary (inc	c.Congestion & Loss Adj.)	\$	290	508	798
44	NH RPS	or congestion a 2000 maj.	Ψ	736	807	1,543
45	RGGI			265	770	1,035
46						
47	Capacity (sold)/boug			410	476	886
48 49	Capacity (sold)/boug	ht Cost (\$000)	\$	1,680	1,950	3,630

50

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# PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE ENERGY SERVICE RATE CALCULATION

# Forecasted PSNH IPP Market Value - November - December 2009

2 3 IPP Energy at IPP 4 Mkt Value Capacity ICAP Value **ICAP** Total Total 5 Month GWh (\$000)MW\$/MWh \$/kw-mo (\$000)(\$000)6 November 34.052 1,220 85.2 4.1 349.0 1,569 46.08 7 December 38.403 1,917 85.2 4.1 349.0 2,266 59.01 8 Total 72.455 3,137 698.0 3,835 52.93

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

5 6 7

2

3

8 9 10 11 <u>Fossil / Hydro O&amp;M, Depr. &amp; Taxes</u>	January 2009 Actual	ebruary 2009 Actual	March 2009 Actual	April 2009 Actual	May 2009 Actual	June 2009 Actual	July 2009 Actual	August 2009 Actual	eptember 2009 Actual	October 2009 Actual	ovember 2009 -Estimate		ecember 2009 Estimate	Total
12								 				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
13 F/H Operation & Maintenance Cost (1)	\$ 9,190	\$ 6,573	\$ 7,407	\$ 9,941	\$ 7,439	\$ 6,885	\$ 13,988	\$ 7,958	\$ 1,542	\$ 9.250	\$ 13,832	\$	11.673	\$ 105.67
14 F/H Depreciation Cost	1,710	1,712	1,715	1,719	1,722	1,732	1,728	1,730	1.732	1.738	1.763		1,774	20.77
15 F/H Property Taxes	684	684	684	729	690	690	690	690	690	734	647		647	8.25
16 F/H Payroll Taxes	164	147	318	42	(226)	191	221	133	180	79	124		130	1.50
17 Amortization of Asset Retirement Obligation	-	-	103	_		105	-	-	107		_		117	43
18	 	 			 ***************************************		 ***************************************				 			
19 Total F/H O&M, Depr. and Taxes	\$ 11,748	\$ 9,116	\$ 10,227	\$ 12,431	\$ 9,625	\$ 9,603	\$ 16,627	\$ 10,511	\$ 4,251	\$ 11,801	\$ 16,366	\$	14,341	\$ 136,64

22 (1) September 2009 reflects \$10.0M credit for MK2 Insurance Reimbursement for O&M costs.

29

20

23 24

Total

\$ 42,933

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

9 10 11	January 2009	February 2009	March 2009	April 2009	May 2009	June 2009	July 2009	August 2009	September 2009	October 2009	November 2009	December 2009	
12 Return on Rate Base	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Estimate	Estimate	_
13 14													
15 Net Plant	277,119	277,119	276,979	276,979	276,979	277,164	277,164	277,164	276,426	276,426	276,426	292,607	
16										, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
17 Working Capital Allow. (45 days of O&M)	12,467	12,467	12,467	12,467	12,467	12,467	12,467	12,467	12,467	12,467	12,467	12,467	
18 Fossil Fuel Inventory	73,769	73,769	70,428	70,428	70,428	72,561	72,561	72,561	81,439	81,439	81,439	74,321	
19 Mat'ls and Supplies	53,221	53,221	52,028	52,028	52,028	51,883	51,883	51,883	52,277	52,277	52,277	59,999	
20 Prepaid Property Taxes	376	376	1,190	1,190	1,190	975	975	975	874	874	874	376	
21 Deferred Taxes	(16,817)	(16,817)	(15,763)	(15,763)	(15,763)	(17,651)	(17,651)	(17,651)	(20,190)	(20,190)	(20,190)	(8,941)	
22 Other Regulatory Obligations	(10,509)	(10,509)	(10,608)	(10,608)	(10,608)	(10,832)	(10,832)	(10,832)	(10,193)	(10,193)	(10,193)	(28,357)	
23 Total Rate Base-Adjusted (sum L15 thru L22)	389,626	389,626	386,721	386,721	386,721	386,567	386,567	386,567	393,100	393,100	393,100	402,472	
24													
25 Average Rate Base ( prev + curr month)	390,677	389,626	388,174	386,721	386,721	386,644	386,567	386,567	389,834	393,100	393,100	397,786	
26 x Return	0.9001%	0.9001%	0.9001%	0.9073%	0.9073%	0.9073%	0.9257%	0.9257%	0.9257%	0.9279%	0.9279%	0.9279%	
27 Return-Adjusted (L25 x L26)	\$ 3,516	\$ 3,507 \$	3,487	3,509	3,509	3,507 \$	3,578	\$ 3,578 \$	3,669 \$	3,648	\$ 3,648	\$ 3,778	9

33 34 Amounts shown above may not add due to rounding.

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

# Public Service Company of New Hampshire Energy Service Rate – Revised Estimate

Docket No. DE 09-180

# Joint Technical Statement of Robert A. Baumann and David A Errichetti

December 7, 2009

## 1. Purpose of Technical Statement

This Technical Statement is being submitted to explain the changes to Public Service Company's proposed Default Energy Service (ES) Rate effective January 1, 2010. This filing updates the Company's ES filing that was submitted on September 24, 2009.

# 2. Proposed Rate

On September 24, 2009, PSNH filed a preliminary 2010 ES rate of 9.31cents/kWh to be effective for the 12 month period January 1 through December 31, 2010. In this filing, PSNH is proposing an ES rate of 8.96 cents/kWh to be effective January 1, 2010, which is a decrease of 0.07 cents/kWh from the currently effective ES rate of 9.03 cents/kWh.

The decrease in the ES rate from the September 24, 2009 filing to this December 7, 2009 filing is attributable to a net decrease in actual and forecasted costs of \$20.9 million [a decrease of \$52.1 million in expense, net of a revenue decrease of \$31.2 million] which is contained in Attachment RAB-1.

The forecasted cost changes are contained in Attachment RAB-2, page 3, and are specifically referenced below. The forecasted cost and revenue changes are attributable to a slight change in forward electricity prices as of November 30, 2009, loss of load due to lower sales primarily due to customer migration and other changes as noted below.

### 3. Changes from September 24, 2009 Filing

### Attachment RAB-2, Page 3:

For the forecast period January through December 2010, the impact of updated forward electricity prices, coal prices, oil prices, migration, RPS compliance, RGGI, etc. is to lower the overall ES costs by \$39.1 million. Following is a line by line discussion of what changed and why.

Lines 4 and 5 – Coal generation increased by 6.2GWh reflecting a net reduction in forecasted maintenance and expense decreased \$5.8 million reflecting lower dispatch prices despite greater generation.

Lines 7 through 9 – Wood generation is down 6.3 GWh due to increased forecasted maintenance which reduces fuel expense by \$0.3 million and reduces revenue credits by \$0.2 million.

Lines 14 and 15 – Newington fuel expense increased by \$6.7 million reflecting increased operation of 98.8 GWh. The change in operation reflects dispatching on current oil inventory and starting-up on natural gas as opposed to replacement oil for both. Based on the forward electricity prices used in this update, Newington's generation provides a net benefit of \$1.6 million; \$7.4 million in expense versus \$9.0 million in revenue.

Lines 18 and 19 – IPP Energy Expense decreased by \$0.1 million due to forward electricity price changes and, for June through December, the removal of the two ipp resources noted in STAFF-01, Q-STAFF-016- SP01 (0.53 MW). The \$0.02 million reduction in capacity expense is also attributable to these two resources being removed. A table showing forecasted forward electricity prices is provided at the end of this technical statement. On a simple average basis over all hours forward electricity prices are lower by 0.6%.

Line 21 and 22 – Peak Purchases decreased by 199.1 GWh primarily due to lower sales requirements (sales forecast and migration) lowering expenses by \$13.6 million. As noted above forecast forward electricity prices are little changed. A supplement to STAFF-01, Q-STAFF-006 is being filed showing the updated sales forecast, the preliminary sales forecast, migration levels and the changes between the two filings.

Line 27 and 28 – Off peak Purchases decreased by 83.4 GWh primarily due to lower sales requirements (sales forecast and migration) lowering expenses by \$4.7 million. As noted above forecasted forward electricity prices are little changed. A supplement to STAFF-01, Q-STAFF-006 is being filed showing the updated sales forecast, the preliminary sales forecast, migration levels and the changes between the two filings.

Line 30 and 31 – Surplus Energy Sales increased by 190.3 GWh primarily due to lower sales requirements (sales forecast and migration) increasing revenues by \$11.5 million. As noted above forecasted forward electricity prices are little changed. A supplement to STAFF-01, Q-STAFF-006 is being filed showing the updated sales forecast, the preliminary sales forecast, migration levels and the changes between the two filings.

Line 33 – Congestion and Loss Adjustment increased by \$0.8 million due to reduced sales requirements that result in fewer peak and off peak ISO-NE energy purchases and increased surplus sales, all of which are priced at the Massachusetts hub but moved to or from the New Hampshire load zone as appropriate.

Line 39 – ISO-NE Ancillary costs decreased \$0.1 million due to updated migration.

Line 40 – New Hampshire RPS expense decreased by \$1.2 million. This change encompasses both the impact of reduced sales requirements (sales forecast and migration) and the error identified STAFF-01, Q-STAFF-014. A supplement to STAFF-01, Q-STAFF-006 is being filed showing the updated sales forecast, the preliminary sales forecast, migration levels and the changes between the two filings.

Line 41 – RGGI costs decreased \$1.8 million consistent with lower RGGI allowance price estimates and updated CO<sub>2</sub> emissions estimates.

Line 43 and 44 – Capacity costs decreased by \$7.7 million. In addition to capturing updated migration the following refinements were made. For January through May 2010 the estimate has been updated using historical data through October 2009. For June through December the MWs credited to PSNH were reduced for the two resources noted in STAFF-01, Q-STAFF-016- SP01 (0.53 MW) for CORE activity as discussed in OCA-01, Q-OCA-006, 25.25 MW after pro ration and increased by 128.68 MWs (June through November) to account for the impact of HQ ICCs on PSNH's capacity payments.

The following table compares forward electricity prices used in the September 24, 2009 filing to those used in this update. The updated prices were as of November 30, 2009.

			Forward	Electricity F	rices for D	elivery at M	assachuset	ts Hub								
		Sept Filing	9		Dec Filing	J		Change								
	Peak	Off Peak All hrs *		Peak	Off Peak	All hrs *	Pe	ak	Off F	eak	All Hrs					
	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	\$/MWh	%	\$/MWh	%	\$/MWh	%				
Jan-10	62.96	51.25	56.81	65.75	53.05	59.08	2.79	4.4%	1.80	3.5%	2.27	3.5%				
Feb-10	62.96	51.25	56.81	65.75	53.05	59.08	2.79	4.4%	1.80	3.5%	2.27	3.5%				
Mar-10	54.47	43.75	48.84	54.50	43.22	48.58	0.03	0.1%	-0.53	-1.2%	-0.26	-0.5%				
Apr-10	54.47	43.75	48.84	54.50	43.22	48.58	0.03	0.1%	-0.53	-1.2%	-0.26	-0.5%				
May-10	52.25	41.45	46.58	52.30	40.30	46.00	0.05	0.1%	-1.15	-2.8%	-0.58	-1.1%				
Jun-10	55.95	42.22	48.74	55.15	40.58	47.50	-0.80	-1.4%	-1.64	-3.9%	-1.24	-2.2%				
Jul-10	62.47	45.92	53.78	62.21	44.93	53.14	-0.26	-0.4%	-0.99	-2.2%	-0.64	-1.0%				
Aug-10	62.47	45.92	53.78	62.21	44.93	53.14	-0.26	-0.4%	-0.99	-2.2%	-0.64	-1.0%				
Sep-10	55.58	42.92	48.93	54.84	42.00	48.10	-0.74	-1.3%	-0.92	-2.1%	-0.83	-1.5%				
Oct-10	58.58	45.44	51.68	55.52	43.46	49.19	-3.06	-5.2%	-1.98	-4.4%	-2.49	-4.5%				
Nov-10	62.91	48.81	55.51	58.89	46.10	52.17	-4.03	-6.4%	-2.71	-5.6%	-3.34	-5.7%				
Dec-10	67.03	52.00	59.14	68.74	53.81	60.90	1.72	2.6%	1.81	3.5%	1.76	2.6%				
simple avq	59.34	46.22	52.45	59.20	45.72	52.12	-0.15	-0.2%	-0.50	-1.1%	-0.33	-0.6%				

 $<sup>\</sup>ensuremath{^*}$  assumes 47.5% of hours are peak and 52.5% of hours are off peak

# Other Changes:

Removal of Bio Energy over market costs and reliability VAR support costs, as proposed in Method 2 described in PSNH's testimony, reduced the ES costs by another \$13.927 million as noted on Attachment RAB-1, line 40. All other 2009 actual and forecasted expense changes totaled about \$0.9 million.

The 2010 PSNH retail sales were reduced by 348 GWH to reflect lower forecasted sales, primarily due to additional migration, which reduced projected revenues by \$31.2 million.