PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE 2012 ENERGY SERVICE RATE CALCULATION MERRIMACK SCRUBBER IMPACT (Dollars in 000's)

9				
10				
11	Summary of Forecasted Energy Service	Merrimack	Scrubber	
12	Cost For January 2012 Through December 2012	T	otal cost	Reference
13				
14	Merrimack Scrubber O&M, Fuel and Avoided SO2 cost	\$	6,679	Attachment RAB-5, page 2
15	Merrimack Scrubber Depreciation Expense		13,761	Attachment RAB-5, page 2
16	Merrimack Scrubber Property Tax Expense		267	Attachment RAB-5, page 2
17			36,539	Attachment RAB-5, page 3
18				
19		\$	57,246	
20				
	Amortization of 2011 Merrimack Scrubber Under Recovery		4,520	Line 44 below
22		_		
23		\$	61,767	
24			5.000.050	
25 26			5,230,952	
26				
28	Forecasted Energy Service Merrimack Scrubber Rate Impact			
29	cents Per KWH (line 23 / Line 25)		1.18	
30			1.10	
31	Energy Service Rate as filed on 9/23/11 without MK Scrubber		8.39	
32		***************************************	0.00	
33			9.57	
34	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	-	0.01	
35				
36	Proposed three year recovery and amortization of the			
37	2011 Merrimack Scrubber Underrecovery			
38	2011 Melfillack Scrubber Offderrecovery			
39	2011 Merrimack Scrubber Under Recovery	s	13.561	Attachment RAB-6, page 1
40	2011 Wellinack Scrabber Olider (Necovery	Ų	13,301	Attachment (Ab-o, page)
41	Amortized over 3 years 2012 - 2014		3	
42		***************************************	<u> </u>	
43	2012 Amortization of Merrimack Scrubber			
44	under recovery from 2011 (Line 39 / Line 41)	\$	4,520	
	. , ,	***************************************		

Page 2

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE 2012 ENERGY SERVICE RATE CALCULATION MERRIMACK SCRUBBER O&M, DEPRECIATION AND PROPERTY TAXES (Dollars in 000's)

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8 9	Je	nuary	Fe	ebruary	,	March	,	April	М	lay	J	June		July	Au	ıgust	Se	ptember	0	ctober	Nove	mber	Decei	mber		
10	2	2012		2012		2012	2	2012	20)12	2	2012	2	2012	2	012		2012		2012	20	12	20	12	Т	otal
11 Merrimack Scrubber O&M, Depr. & Taxes	Es	timate	E	stimate	E	stimate	Es	timate	Estir	mate	Es	timate	Es	timate	Est	imate	E	stimate	Es	stimate	Estin	nate	Estin	nate		
12																										
13 Merrimack Scrubber Operation & Maintenance Cost	\$	342	\$	342	\$	342	\$	342	\$	342	\$	342	\$	342	\$	342	\$	342	\$	342	\$	340	\$	340	\$	4,100
14 Merrimack Scrubber Fuel related Cost		658		658		658		658		658		658		658		658		659		659		659		659		7,900
15 Merrimack Scrubber Avoided SO2 Cost		(648)		(606)		(589)		(358)		-		(358)		(587)		(587)		-		(370)		(570)		(648)		(5,321)
16 Merrimack Scrubber Depreciation Cost		1,070		1,070		1,070		1,099		1,099		1,099		1,203		1,203		1,203		1,215		1,215		1,215		13,761
17 Merrimack Scrubber Property Taxes (1)		17		17		17		24		24		24		24		24		24		24		24		24		267
18																										
19 Total Merrimack Scrubber O&M, Fuel, SO2, Depr. and Taxes	\$	1,439	\$	1,481	\$	1,498	\$	1,765	\$	2,123	\$	1,765	\$	1,640	\$	1,640	\$	2,228	\$	1,870	\$	1,668	\$	1,590	\$	20,707

^{21 (1)} Merrimack Scrubber related property tax impact represents the projection of the non-exempt portion of the project

Page 3

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE 2012 ENERGY SERVICE RATE CALCULATION MERRIMACK SCRUBBER RETURN ON RATE BASE (Dollars in 000's)

4 5 6

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8 9

8																												
9		J	lanuary	Fe	ebruary	N	larch	/	April		May		June		July		August	Sep	tember	0	ctober	No	ovember	De	ecember			
10	Merrimack Scrubber		2012		2012	2	2012	2	2012		2012		2012		2012		2012	2	2012		2012		2012		2012		Total	
11	Return on Rate Base	Е	stimate	E	stimate	Es	timate	Es	timate	E	Estimate	Е	Estimate	Е	Estimate	Е	Estimate	Es	timate	E	stimate	E	stimate	Е	Estimate			
12																												
13																												
14	Rate base																											
15	Net Plant	\$	349,288	\$	348,218	\$ 3	356,348	\$ 3	355,249	\$	354,150	\$	385,351	\$	384,148	\$	382,945	\$ 3	383,742	\$	382,527	\$	381,312	\$	383,097			
16																												
17	Working Capital Allow. (45 days of O&M)		505		505		505		505		505		505		505		505		505		505		505		505			
18	Deferred Taxes		(22,499)		(27,622)		(32,129)		(35,044)		(39,544)		(45,117)		(49,632)		(55,874)		(56,029)		(54,224)		(57,333)		(61,906)			
19	Total Rate Base (L15 thru L18)		327,294		321,101	3	324,724	3	320,710		315,111		340,739		335,021		327,576	:	328,218		328,808		324,484		321,696	•		
20																										•		
21	Average Rate Base (prev + curr month)		328,906		324,198	3	322,913	3	322,717		317,911		327,925		337,880		331,299	;	327,897		328,513		326,646		323,090			
22	x Return		0.9322%		0.9322%	C	.9322%	C	0.9322%		0.9322%		0.9322%		0.9322%		0.9322%	(0.9322%		0.9322%		0.9322%		0.9322%			
23	Merrimack Scrubber Return (L21 x L22)	\$	3,066	\$	3,022	\$	3,010	\$	3,008	\$	2,963	\$	3,057	\$	3,150	\$	3.088	\$	3.056	\$	3.062	\$	3.045	\$	3.012	\$	36.53	9

1 2 3	2011 ENERGY S	COMPANY OF NEW ERVICE RATE CAL CK SCRUBBER IMF	CULATION	
4	(1	Dollars in 000s)		
5				
6				
7				
8				
9				
10				
10 11		Merrima	ıck Scrubber	
11			ick Scrubber tal cost	Reference
11	Summary of Forecasted and Actual Energy Service Cost For January 2011 Through December 2011			Reference
11 12 13	Summary of Forecasted and Actual Energy Service Cost For January 2011 Through December 2011			Reference Attachment RAB-6, page 2
11 12 13 14	Summary of Forecasted and Actual Energy Service Cost For January 2011 Through December 2011	То	tal cost	
11 12 13 14 15	Summary of Forecasted and Actual Energy Service Cost For January 2011 Through December 2011 Merrimack Scrubber O&M, Fuel and Avoided SO2 cost	То	1,450	Attachment RAB-6, page 2
11 12 13 14 15	Summary of Forecasted and Actual Energy Service Cost For January 2011 Through December 2011 Merrimack Scrubber O&M, Fuel and Avoided SO2 cost Merrimack Scrubber Depreciation Expense Merrimack scrubber Property Tax Expense	То	1,450 3,100	Attachment RAB-6, page 2 Attachment RAB-6, page 2
11 12 13 14 15	Summary of Forecasted and Actual Energy Service Cost For January 2011 Through December 2011 Merrimack Scrubber O&M, Fuel and Avoided SO2 cost Merrimack Scrubber Depreciation Expense Merimack Scrubber Property Tax Expense	То	1,450 3,100 51	Attachment RAB-6, page 2 Attachment RAB-6, page 2 Attachment RAB-6, page 2

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PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE 2011 ENERGY SERVICE RATE CALCULATION MERRIMACK SCRUBBER O&M, DEPRECIATION AND TAXES (Dollars in 000s)

8 9 10 11 <u>Merrimack Scrubber O&M, Depr. & Taxes</u>	2	uary)11 tual	2	bruary 2011 ctual	2	March 2011 Actual	:	April 2011 Actual	May 2011 Actual		June 2011 Actual	July 2011 Actual	2	ugust 2011 ctual	eptember 2011 ctual (1)	2	ctober 2011 timate	2	vember 2011 stimate	ecember 2011 stimate	5	Total
12																						
13 Merrimack Scrubber Operation & Maintenance Cost	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$ _	\$	-	\$ -	\$	300	\$	300	\$ 600	\$	1,200
14 Merrimack Scrubber Fuel Related Cost		-		-		-		-	-		-	(-		-	-		110		180	430		720
15 Merrimack Scrubber Avoided SO2 cost		-		-		-		-	-		-	_		-	-		(140)		(140)	(190)		(470)
16 Merrimack Scrubber Depreciation Cost		-		-		-		-			-	-		-	100		1,000		1,000	1,000		3,100
17 Merrimack Scrubber Property Taxes (2)		-		-		-		-	-		_			_	-		17		17	17		51
18																						
19 Total Merrimack Scrubber O&M, Fuel, SO2, Depr. and Taxes	\$	-	\$	-	\$	-	\$	-	\$	- \$	-	\$ -	- \$	-	\$ 100	\$	1,287	\$	1,357	\$ 1,857	\$	4,601

¹⁹ Total Merrimack Scrubber O&M, Fuel, SO2, Depr. and Taxes \$ - \$ - \$ - \$ - \$ 20
21
22
23 (1) Reflect September 28, 29, & 30, 2011.
24 (2) Merrimack Scrubber related property tax impact represents the projection of the non-exempt portion of the project.

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PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE 2011 ENERGY SERVICE RATE CALCULATION MERRIMACK SCRUBBER RETURN ON RATE BASE (Dollars in 000s)

5 6

24 25

/																											
8																											
9		January		Febru	ary	N	/larch		April		May	,		June		July	A	August	September		October	No	vember	De	cember		
10	Merrimack Scrubber	2011		201	1		2011		2011		201	I	2	2011		2011		2011	2011		2011	;	2011	:	2011	Total	
11	Return on Rate Base	Actual		Actu	al	A	ctual		Actual		Actu	al	Α	ctual		Actual	,	Actual	Estimate (1)	-	Estimate	E۶	stimate	Es	stimate		
12																											-
13																											
14	Rate base																										
15	Net Plant	\$ -	\$		-	\$	-	\$	-	\$		-	\$	-	\$	-	\$	12	\$ 324,516	\$	323,516	\$	322,516	\$	350,352		
16																											
17	Working Capital Allow. (45 days of O&M)		-		-			-		_		_		_		_		-	148		148		148		148		
18	Deferred Taxes		-		-			-		-		-		-		-		-	(15,843))	(17,179)		(18,509)		(19,833)		
19	Total Rate Base (L15 thru L18)		-		-					-		-		-		-		-	308,821		306,485		304,155	,	330,667		
20																											
21	Average Rate Base (prev + curr month)		-		-			-		-		-		_		_		-	308,821		307,653		305,320		317,411		
22	x Return	0.93399	%	0.9	39%		0.9339	%	0.941	1%	0.94	11%	(0.9411%	5	0.9322%		0.9322%	0.9322%		0.9322%	1	0.9322%		0.9322%		
23	Merrimack Scrubber Return (L21 x L22)	\$ -	\$		-	\$	-	\$	-	\$		-	\$	-	\$	-	\$	-	\$ 288	\$	2,868	\$	2,846	\$	2,959	\$ 8,960	-

26 (1) The Merrimack Scrubber was declared in service effective on September 28, 2011, therefore, the September return was prorated to represent 3/30 for the month or 10% of the monthly return.

ATTACHMENT 3

Affidavit of Robert A. Baumann

THE STATE OF NEW HAMPSHIRE before the PUBLIC UTILITIES COMMISSION

Docket	No.	DE	

PSNH Clean Air Project Review

Affidavit of Robert A. Baumann

Being first duly sworn and put upon oath, I, Robert A. Baumann do hereby state:

- 1. My name is Robert A. Baumann. My business address is 107 Selden Street, Berlin, Connecticut. I am Director, Revenue Regulation & Load Resources for Northeast Utilities Service Company (NUSCO). NUSCO provides centralized services to the Northeast Utilities (NU) operating subsidiaries, including Public Service Company of New Hampshire (PSNH), The Connecticut Light and Power Company, Yankee Gas Services Company and Western Massachusetts Electric Company.
- 2. As of January 1, 2012, the revenue requirements associated with PSNH's Scrubber Project will be approximately \$5 million to \$6 million per month, as shown on line 22 of Attachment RAB-1 attached hereto.
- 3. If recovery of scrubber costs does not commence on January 1, 2012, PSNH will be required to defer such costs for recovery through a future Energy Service rate.
- 4. Such deferral will not only require that the cumulative monthly deferred amounts be recovered, but also that carrying costs on the monthly deferral also be recovered through a future Energy Service rate.
- 5. The carrying cost on the monthly deferrals is shown on line 26 of Attachment RAB-1.
- 6. Based upon the data contained in PSNH's October 14, 2011 filing in Docket No. DE 11-215, the cost recovery impact of the Scrubber Project on PSNH's Energy Service rate commencing January 1, 2012 would be 1.18¢ per kWh, as shown on line 14 of Attachment RAB-1.

KWB on	
Robert A. Baumann	

STATE OF CONNECTICUT }
COUNTY OF HARTFORD }

Subscribed and sworn to before me this 18th day of November, 2011.

DONNA DOW

NOTARY PUBLIC

STATE OF CONNECTICUT

MY COMMISSION EXPIRES 04/30/2014

1 PUBLIC SERVIC 2 2012 ENERG						E								
3		ars in 000's		LCOLATIC)									
4	(DOIII	313 111 000 3	''											
i														
6														
7														
8 January February March April May June														
9 2012 2012 2012 2012 2012 2012														
10 Energy Service Cost Estimate Estimate Estimate Estimate Estimate Estimate														
11 ES Scrubber Impact - O&M, Fuel and Avoided SO2		0.14		0.14		0.14		0.14		0.14		0.14		
12 ES Scrubber Impact - Return, Depreciation and Property Tax		1.04		1.04		1.04		1.04		1.04		1.04		
13														
14 Total ES Rate Scrubber Impact - c/kwh		1.18		1.18		1.18		1.18		1.18		1.18		
15														
16 Forecasted Retail MWH Sales		476,707		434,674		434,169		397,180		396,382		429,451		
17														
18 Scrubber O&M, Fuel and Avoided SO2 [line 11 x line 16]	\$	653	\$	595	\$	594	\$	544	\$	543	\$	588		
19														
20 Scrubber Return, Depreciation and Property Tax [line 12 x line 16] 21	\$	4,976	\$	4,537	\$	4,532	\$	4,146	\$	4,138	\$	4,483		
22 Total Scrubber Impact [line 18 + line 20]	\$	5,629	\$	5,133	\$	5,127	\$	4,690	\$	4,680	\$	5,071		
23														
24 Cumlative ES deferral if recovery is delayed	\$	5,629	\$	10,762	\$	15,888	\$	20,578	\$	25,259	\$	30,330		
25														
26 ES Deferral carrying costs at prime rate	\$	15	\$	29	\$	43	\$	56	\$	68	\$	82		

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE 2012 ENERGY SERVICE RATE CALCULATION (Dollars in 000's)

7 8 9 10 <u>Energy Service Cost</u> 11 ES Scrubber Impact - O&M, Fuel and Avoicded SO2	July 2012 stimate 0.14	August 2012 stimate	eptember 2012 stimate	October 2012 Stimate	ovember 2012 stimate	December 2012 Estimate		Total	
12 ES Scrubber Impact - Return, Depreciation and Property Tax	1.04	0.14 1.04	0.14 1.04	0.14 1.04	0.14 1.04	0.14 1.04		0.14 1.04	
13			 1.01	 1.01	 1.07	 1.04		1,07	
14 Total ES Rate Scrubber Impact - c/kwh 15	1.18	1.18	1.18	1.18	1.18	1.18		1.18	
16 Forecasted Retail MWH Sales	493,997	472,803	413,157	408,160	415,056	459,216	5	,230,952	
18 Scrubber O&M, Fuel and Avoided SO2 [line 11 x line 16]	\$ 692	\$ 662	\$ 578	\$ 571	\$ 581	\$ 643	\$	7,323	
20 Scrubber Return, Depreciation and Property Tax[line 12 x line 16]	\$ 5,138	\$ 4,917	\$ 4,297	\$ 4,245	\$. 4,317	\$ 4,776	\$	54,402	
22 Total Scrubber Impact [line 18 + line 20] 23	\$ 5,829	\$ 5,579	\$ 4,875	\$ 4,816	\$ 4,898	\$ 5,419	\$	61,725	
24 Cumlative ES deferral if recovery is delayed 25	\$ 36,138	\$ 41,717	\$ 46,592	\$ 51,409	\$ 56,306	\$ 61,725			
26 ES Deferral carrying costs at prime rate	\$ 98	\$ 113	\$ 126	\$ 139	\$ 152	\$ 167	\$	1,090	