

ORIGINAL	
N.H.P.U.C. Case No.	DE 11-250
Exhibit No.	# 136
Witness	Christopher J. Goulding
DO NOT REMOVE FROM FILE	

Public Service of New Hampshire d/b/a Eversource Energy
Docket No. DE 15-415

Date Request Received: 11/06/2015

Date of Response: 11/20/2015

Request No. STAFF 1-001

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Request from: New Hampshire Public Utilities Commission Staff

Witness: Christopher J. Goulding

Request:

Please provide detailed information and calculations regarding the deferral, carrying charge, O&M, property taxes, depreciation, revenues, and return on rate base related to the scrubber at Merrimack Station for 2015 and for the forecasted January 1, 2016 ES rate. Also, indicate the schedules and line items that include the forecasted scrubber costs in DE 15-415.

Response:

Please see the attached. References for the 2016 forecasted scrubber costs included in the rate filing can be found on Pages 7 and 8 of this response. 2015 scrubber costs were not included in the rate filing.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE DBA EVERSOURCE ENERGY
MERRIMACK SCRUBBER 12/31/15 UNDER-RECOVERY SUMMARY
(Dollars in 000s)

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Summary of Forecasted 2015 Costs & Revenues	Merrimack Scrubber Total Cost/Revenues For the Year Ended December 31, 2015	Source
Total Merrimack Scrubber Under-Recovery 12/31/14	\$ 105,027	Page 5, Line 11
Merrimack Scrubber O&M	2,126	Page 3, Line 1
Merrimack Scrubber Fuel	7,689	Page 3, Line 2
Merrimack Scrubber Avoided SO2 Cost	(2,541)	Page 3, Line 3
Merrimack Scrubber Depreciation Expense	15,535	Page 3, Line 4
Merrimack Scrubber Property Tax Expense	215	Page 3, Line 5
Merrimack Scrubber Return on Rate Base	28,352	Page 4, Line 7
Merrimack Scrubber Costs	\$ 51,376	Line 16 + Line 17 + Line 18 + Line 19 + Line 20 + Line 21
Actual Merrimack Scrubber Revenue	39,511	Page 5, Line 2
Under-Recovery before Carrying Cost	\$ 116,892	Line 14 + Line 23 - Line 25
Carrying Cost on Under-Recovery	6,395	Page 5, Line 9
Total Merrimack Scrubber Under-Recovery 12/31/15	\$ 123,287	Line 27 + Line 29

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE DBA EVERSOURCE ENERGY
FORECASTED 2015 MERRIMACK SCRUBBER O&M, DEPRECIATION AND PROPERTY TAXES
(Dollars in 000s)

Line	Merrimack Scrubber O&M, Depr. & Taxes	January 2015 Actual	February 2015 Actual	March 2015 Actual	April 2015 Actual	May 2015 Actual	June 2015 Actual	July 2015 Actual	August 2015 Forecast	September 2015 Forecast	October 2015 Forecast	November 2015 Forecast	December 2015 Forecast	Total
1	Merrimack Scrubber Operation & Maintenance Cost	\$ 116	\$ 157	\$ 233	\$ 295	\$ 132	\$ 176	\$ 101	\$ 115	\$ 200	\$ 200	\$ 200	\$ 200	\$ 2,126
2	Merrimack Scrubber Fuel-Related Cost	1,207	1,569	806	123	155	128	154	1,820	-	-	329	1,397	7,689
3	Merrimack Scrubber Avoided SO2 Cost	(681)	(684)	(379)	(6)	-	(6)	-	-	-	-	(153)	(633)	(2,541)
4	Merrimack Scrubber Depreciation Cost	1,294	1,294	1,294	1,294	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	15,535
5	Merrimack Scrubber Property Taxes (1)	18	18	18	18	18	18	18	18	18	18	18	18	215
6	Total Merrimack Scrubber O&M, Fuel, SO2, Depr. and Taxes	\$ 1,953	\$ 2,354	\$ 1,973	\$ 1,725	\$ 1,600	\$ 1,611	\$ 1,568	\$ 3,247	\$ 1,513	\$ 1,513	\$ 1,689	\$ 2,277	\$ 23,024

7 (1) Merrimack Scrubber related property tax impact represents the projection of the non-exempt portion of the project

Amounts shown above may not add due to rounding.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE DBA EVERSOURCE ENERGY
FORECASTED 2015 MERRIMACK SCRUBBER RETURN ON RATE BASE
(Dollars in 000s)

Merrimack Scrubber		January	February	March	April	May	June	July	August	September	October	November	December	Total
Line	Return on Rate Base	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	
Year End	2014	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Forecast	Forecast	Forecast	Forecast	Forecast	
1	Net Plant	\$ 364,973	\$ 363,702	\$ 362,411	\$ 361,150	\$ 359,856	\$ 358,561	\$ 357,266	\$ 355,972	\$ 354,664	\$ 353,369	\$ 352,074	\$ 350,780	
2	Working Capital Allow. (45 days of O&M)	\$ 262	\$ 262	\$ 262	\$ 262	\$ 262	\$ 262	\$ 262	\$ 262	\$ 262	\$ 262	\$ 262	\$ 262	
3	Deferred Taxes	(81,972)	(91,234)	(100,496)	(101,179)	(101,861)	(102,544)	(103,227)	(103,910)	(104,593)	(105,276)	(105,959)	(106,643)	
4	Total Rate Base (L1 thru L4)	\$ 268,103	\$ 283,263	\$ 272,730	\$ 262,177	\$ 260,233	\$ 258,257	\$ 256,279	\$ 254,301	\$ 252,324	\$ 250,333	\$ 248,355	\$ 246,377	\$ 244,399
5	Average Rate Base (prev + curr month)	\$ 275,683	\$ 277,996	\$ 267,454	\$ 261,205	\$ 259,245	\$ 257,268	\$ 255,290	\$ 253,313	\$ 251,328	\$ 249,344	\$ 247,366	\$ 245,388	
6	x Return	0.9135%	0.9135%	0.9135%	0.9145%	0.9145%	0.9145%	0.9146%	0.9146%	0.9146%	0.9146%	0.9146%	0.9146%	
7	Merrimack Scrubber Return (L5 x L6)	\$ 2,518	\$ 2,540	\$ 2,443	\$ 2,389	\$ 2,371	\$ 2,353	\$ 2,335	\$ 2,317	\$ 2,299	\$ 2,281	\$ 2,262	\$ 2,244	\$ 28,352

Amounts shown above may not add due to rounding.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE DBA EVERSOURCE ENERGY
 FORECASTED 2015 MERRIMACK SCRUBBER DEFERRAL & CARRYING CHARGE
 (Dollars in 000s)

Merrimack Scrubber	Year End	January	February	March	April	May	June	July	August	September	October	November	December	Total
Line Deferral & Carrying Charge	2014	2015 Actual	2015 Actual	2015 Actual	2015 Actual	2015 Actual	2015 Actual	2015 Actual	2015 Forecast	2015 Forecast	2015 Forecast	2015 Forecast	2015 Forecast	
1 Scrubber Cost		\$ 4,471	\$ 4,894	\$ 4,416	\$ 4,114	\$ 3,971	\$ 3,964	\$ 3,903	\$ 5,564	\$ 3,812	\$ 3,794	\$ 3,951	\$ 4,521	\$ 51,375
2 Scrubber Revenues		(4,731)	(4,112)	(3,953)	(2,690)	(2,648)	(2,783)	(3,341)	(3,459)	(2,827)	(2,827)	(2,832)	(3,308)	(39,511)
3 Current Month Deferred Scrubber Cost		\$ (260)	\$ 782	\$ 463	\$ 1,424	\$ 1,323	\$ 1,181	\$ 562	\$ 2,105	\$ 985	\$ 967	\$ 1,119	\$ 1,213	\$ 11,864
4 Cumulative Deferred Scrubber Cost (Excluding Carrying Charges)	\$ 92,991	\$ 92,731	\$ 93,513	\$ 93,976	\$ 95,400	\$ 96,723	\$ 97,904	\$ 98,465	\$ 100,570	\$ 101,555	\$ 102,522	\$ 103,642	\$ 104,855	
5 Cumulative Average Deferral Balance		\$ 92,861	\$ 93,122	\$ 93,745	\$ 94,688	\$ 96,061	\$ 97,313	\$ 98,184	\$ 99,518	\$ 101,063	\$ 102,039	\$ 103,082	\$ 104,248	
6 Deferred Taxes		\$ (37,632)	\$ (37,738)	\$ (37,990)	\$ (38,372)	\$ (38,929)	\$ (39,436)	\$ (39,789)	\$ (40,330)	\$ (40,956)	\$ (41,351)	\$ (41,774)	\$ (42,247)	
7 Net Average Deferral Balance		55,229	55,384	55,755	56,316	57,133	57,877	58,395	59,188	60,107	60,687	61,308	62,002	
8 x Carrying Charge		0.9135%	0.9135%	0.9135%	0.9145%	0.9145%	0.9145%	0.9146%	0.9146%	0.9146%	0.9146%	0.9146%	0.9146%	
9 Scrubber Deferral Carrying Charge		\$ 505	\$ 505	\$ 509	\$ 515	\$ 522	\$ 529	\$ 534	\$ 541	\$ 550	\$ 555	\$ 561	\$ 567	\$ 6,395
10 Cumulative Carrying Charge	\$ 12,036	\$ 12,541	\$ 13,047	\$ 13,556	\$ 14,071	\$ 14,594	\$ 15,123	\$ 15,657	\$ 16,198	\$ 16,748	\$ 17,303	\$ 17,864	\$ 18,431	
11 Total Scrubber Deferral (Including Carrying Charges)	\$ 105,027	\$ 105,272	\$ 106,560	\$ 107,532	\$ 109,471	\$ 111,317	\$ 113,027	\$ 114,122	\$ 116,769	\$ 118,303	\$ 119,826	\$ 121,506	\$ 123,287	
12 Actual Retail MWH Sales		482,767	419,590	403,418	274,474	270,209	284,008	340,960	352,969	288,495	288,421	288,960	337,508	4,031,778

Amounts shown above may not add due to rounding.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE DBA EVERSOURCE ENERGY
FORECASTED 2016 MERRIMACK SCRUBBER COSTS
(Dollars in 000s)

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Summary of Forecasted 2016 Costs	Merrimack Scrubber Forecasted Costs For the Year Ended December 31, 2016	Source
Merrimack Scrubber O&M	\$ 2,400	Page 7, Line 1
Merrimack Scrubber Fuel	\$ 5,441	Page 7, Line 2
Merrimack Scrubber Avoided SO2 Cost	\$ (2,581)	Page 7, Line 3
Merrimack Scrubber Depreciation Expense	\$ 15,540	Page 7, Line 4
Merrimack Scrubber Property Tax Expense	\$ 215	Page 7, Line 5
Merrimack Scrubber Return on Rate Base	\$ 25,682	Page 8, Line 7
Merrimack Scrubber Costs	\$ 46,697	Line 14 + Line 15 + Line 16 + Line 17 + Line 18 + Line 19

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE DBA EVERSOURCE ENERGY
FORECASTED 2016 MERRIMACK SCRUBBER O&M, DEPRECIATION AND PROPERTY TAXES
(Dollars in 000s)

Line	Merrimack Scrubber O&M, Depr. & Taxes	January 2016 Forecast	February 2016 Forecast	March 2016 Forecast	April 2016 Forecast	May 2016 Forecast	June 2016 Forecast	July 2016 Forecast	August 2016 Forecast	September 2016 Forecast	October 2016 Forecast	November 2016 Forecast	December 2016 Forecast	Total	Comment
1	Merrimack Scrubber Operation & Maintenance Cost	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 2,400	Included in C.JG-2, Page 5 Line 13
2	Merrimack Scrubber Fuel-Related Cost	1,657	1,534	1,089	0	0	3	241	-	1	0	1	915	5,441	Included in C.JG-2, Page 3 Line 11
3	Merrimack Scrubber Avoided SO2 Cost	(722)	(678)	(579)	0	-	(1)	(133)	-	0	0	-	(468)	(2,581)	
4	Merrimack Scrubber Depreciation Cost	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	15,540	Included in C.JG-2, Page 5 Line 14
5	Merrimack Scrubber Property Taxes (1)	18	18	18	18	18	18	18	18	18	18	18	18	215	Included in C.JG-2, Page 5 Line 15
6	Total Merrimack Scrubber O&M, Fuel, SO2, Depr. and Taxe	\$ 2,448	\$ 2,369	\$ 2,023	\$ 1,513	\$ 1,513	\$ 1,515	\$ 1,621	\$ 1,513	\$ 1,514	\$ 1,513	\$ 1,514	\$ 1,960	\$ 21,015	

7 (1) Merrimack Scrubber related property tax impact represents the projection of the non-exempt portion of the project

Amounts shown above may not add due to rounding.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE DBA EVERSOURCE ENERGY
FORECASTED 2016 MERRIMACK SCRUBBER RETURN ON RATE BASE
(Dollars in 000s)

Merrimack Scrubber Line Return on Rate Base	Year End 2015	January 2016 Forecast	February 2016 Forecast	March 2016 Forecast	April 2016 Forecast	May 2016 Forecast	June 2016 Forecast	July 2016 Forecast	August 2016 Forecast	September 2016 Forecast	October 2016 Forecast	November 2016 Forecast	December 2016 Forecast	Total	Comment
1 Net Plant		\$ 349,485	\$ 348,190	\$ 346,896	\$ 345,601	\$ 344,306	\$ 343,012	\$ 341,717	\$ 340,422	\$ 339,128	\$ 337,833	\$ 336,538	\$ 335,244		Included in CJG-2, Page 6 Line 15
2 Working Capital Allow. (45 days of O&M)		\$ 296	\$ 296	\$ 296	\$ 296	\$ 296	\$ 296	\$ 296	\$ 296	\$ 296	\$ 296	\$ 296	\$ 296		Included in CJG-2, Page 6 Line 17
3 Deferred Taxes		(107,088)	(107,532)	(107,977)	(108,421)	(108,866)	(109,310)	(109,755)	(110,199)	(110,644)	(111,088)	(111,533)	(111,977)		Included in CJG-2, Page 6 Line 21
4 Total Rate Base (L1 thru L4)	\$ 244,399	\$ 242,693	\$ 240,954	\$ 239,215	\$ 237,476	\$ 235,736	\$ 233,998	\$ 232,258	\$ 230,519	\$ 228,780	\$ 227,041	\$ 225,301	\$ 223,563		
5 Average Rate Base (prev + curr month)		\$ 243,546	\$ 241,823	\$ 240,084	\$ 238,345	\$ 236,606	\$ 234,867	\$ 233,128	\$ 231,388	\$ 229,649	\$ 227,910	\$ 226,171	\$ 224,432		
6 x Return		0.9146%	0.9146%	0.9146%	0.9146%	0.9146%	0.9146%	0.9146%	0.9146%	0.9146%	0.9146%	0.9146%	0.9146%		
7 Merrimack Scrubber Return (L5 x L6)		\$ 2,228	\$ 2,212	\$ 2,196	\$ 2,180	\$ 2,164	\$ 2,148	\$ 2,132	\$ 2,116	\$ 2,100	\$ 2,085	\$ 2,069	\$ 2,053	\$ 25,682	

Amounts shown above may not add due to rounding.