Qualifications of Stephen R. Eckberg

My name is Stephen R. Eckberg. I am employed as a Utility Analyst with the Office of Consumer Advocate (OCA), where I have worked since 2007. My business address is 21 S. Fruit Street, Suite 18, Concord, New Hampshire 03301.

I earned a B.S. in Meteorology from the State University of New York at Oswego in 1978, and an M.S. in Statistics from the University of Southern Maine in 1994.

After receiving my M.S., I was employed as an analyst in the Boston office of Hagler Bailly, Inc, a consulting firm working with regulated utilities to perform evaluations of energy efficiency and demand-side management programs.

From 2000 through 2003, I was employed at the NH Governor's Office of Energy and Community Services (now the Office of Energy and Planning) as the Director of the Weatherization Assistance Program. More recently, I was employed at Belknap-Merrimack Community Action Agency as the Statewide Program Administrator of the NH Electric Assistance Program (EAP). In that capacity, I presented testimony before this Commission in dockets related to the design, implementation and management of the EAP. I have also testified before Committees of the New Hampshire Legislature on issues related to energy efficiency and low income electric assistance.

In my position with the OCA, I have testified jointly with Kenneth E. Traum, Former Assistant Consumer Advocate, in the following dockets:

- DG 08-048 Unitil Corporation and Northern Utilities, Inc. Joint Petition for Approval of Stock Acquisition.
- DW 08-070 Lakes Region Water Company Petition for Financing and Step Increases.

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- DW 08-098 Aquarion Water Company of New Hampshire.
- DE 09-035 Public Service of New Hampshire Distribution Service Rate Case.

I have also entered (non-joint) testimony in:

- DT 07-027 Kearsarge Telephone Company, Wilton Telephone Company Hollis Telephone Company and Merrimack County Telephone Company Petition for Alternative Form of Regulation. Phase II and Phase III.
- DW 08-073 Pennichuck Water Works, Inc. Petition for Rate Increase.
- DW 08-070 Lakes Region Water Company Third Step Increase.
- DW 08-065 Hampstead Area Water Company Petition for Rate Increase.
- DE 09-170 2010 CORE Energy Efficiency Programs.
- DW 10-090 Pittsfield Aquaduct Company Petition for Rate Increase.
- DW 10-091 Pennichuck Water Works Petition for Rate Increase.
- DW 10-141 Lakes Region Water Petition for Rate Increase.
- DE 10-188 2011-2012 CORE and Natural Gas Energy Efficiency Programs.

I have attended regulatory training at New Mexico State University's Center for Public Utilities. I participate in committees of the National Association of State Consumer Advocates (NASUCA) on behalf of the OCA. I am a member of the American Statistical Association.

Public Service Company of New Hampshire Docket No. DE 12-292

Data Request OCA-01 Dated: 10/31/2012 Q-OCA-005 Page 1 of 1

Witness:William H. SmagulaRequest from:Office of Consumer Advocate

Question:

Reference Order No. 25,380 dated June 27, 2012 page7. The Order states "Finally, we direct the Company to undertake a systematic review of operation, materials, and capital costs, including personnel costs, associated with the operation of its fossil fuel plants given the low capacity factors of these units in recent years and the current expectation of them remaining low over the next few years. The review should also include any costs that are billed to the fossil plants such as engineering and regulatory support. PSNH shall provide details regarding its review and analysis at the time it makes its next energy service filing." [emphasis added]. Has the completed the systematic review ordered by the Commission? If so, please provide that review and supporting documentation. If not, please explain.

Response:

As noted above and discussed in the order, PSNH is completing the requested review. This review of operations, materials, and capital costs will be reflected in the data to be submitted in the 2013 Proposed Energy Service filing in December. The associated discussion including personnel costs, capacity factors, engineering and regulatory support, etc. will be provided.

Public Service Company of New Hampshire Docket No. DE 12-292

Data Request STAFF-01 Dated: 10/24/2012 Q-STAFF-004 Page 1 of 6

Witness:Robert A. BaumannRequest from:New Hampshire Public Utilities Commission Staff

Question:

Reference Attachment RAB-2, page 5. Please break down the amounts shown in the table by a) generating plant and b) by individual unit (if available) in a format similar to the response to STAFF-01, Q-STAFF-002 in DE 11-215. For purposes of this question, the hydro units and the combustion turbines can be shown as separate groups.

Response:

Please see the attached.

Data Request STAFF-01 Dated: 10/24/2012 Q-STAFF-004 Page 2 of 6

PSNH 2013 Energy Service Rate Calculation Fossil/Hydro O&M

(thousands of dollars)

F/H O&M Cost	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Total
Merrimack Station (1) Schiller Station Newington Station Hydro Plants	2,981 1,680 750 <u>845</u> 6,256	2,263 1,275 569 642 4,749	2,810 1,584 707 <u>797</u> 5,899	8,142 4,589 2,048 2,308 17,087	4,542 2,560 1,142 1,288 9,532	1,190 671 299 337 2,497	2,663 1,501 670 755 5,589	3,090 1,742 777 876 6,486	2,454 1,383 617 <u>696</u> 5,149	4,778 2,693 1,202 1,355 10,027	2,334 1,316 587 662 4,898	2,271 1,280 571 <u>644</u> 4,767	39,519 22,273 9,939 <u>11,203</u> 82,935

(1) Excludes O&M costs associated with the Merrimack Scrubber.

Amounts shown above may not add due to rounding.

DE 12-292 PSNH 2013 Energy Service Rate Testimony of Eckberg Attachment SRE-3

Data Request STAFF-01 Dated: 10/24/2012 Q-STAFF-004 Page 3 of 6

PSNH 2013 Energy Service Rate Calculation Fossil/Hydro Depreciation

(thousands of dollars)

F/H Depreciation	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Total
F/H Depreciation	336	346	345	346	348	347	348	350	358	358	366	367	4,218
Merrimack Station	104	104	104	104	104	104	104	104	104	104	104	104	1,253
Newington Station	929	929	929	929	929	929	929	929	929	929	929	929	11,149
Schiller Station	5	5	5	5	5	5	5	5	5	5	5	5	58
Wyman	97	97	97	97	97	97	97	97	97	97	97	97	1,164
Hydro	30	30	30	30	30	30	30	30	30	30	30	30	356
Combustion Turbines	47	40	41	41	42	43	44	45	51	51	60	62	561
General Plant/Intangible	1,548	1,551	1,551	1,552	1,554	1,555	1,557	1,560	1,573	1,574	1,591	1,594	18,759

Amounts shown above may not add due to rounding.

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Data Request STAFF-01 Dated: 10/24/2012 Q-STAFF-004 Page 4 of 6

PSNH 2013 Energy Service Rate Calculation Fossil/Hydro Property Tax

(thousands of dollars)

	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Total
Merrimack Station Schiller Station Newington Combustion Turbines Hydro	341 170 92 93 <u>216</u> 912	341 170 92 93 216 912	341 170 92 93 216 912	383 191 104 105 242 1.025	383 191 104 105 <u>242</u> 1,025	383 191 104 105 <u>242</u> 1.025	383 191 104 105 243	383 191 104 105 243	383 191 104 105 243	383 191 104 105 243	383 191 104 105 243	383 191 104 105 243	4,471 2,229 1,214 1,223 2,829
		0.2	012	1,020	1,025	1,025	1,026	1,026	1,026	1,026	1,026	1,026	11,966

(1) Property Tax allocated to stations based on most current tax information available.

Amounts shown above may not add due to rounding.

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Data Request STAFF-01 Dated: 10/24/2012 Q-STAFF-004 Page 5 of 6

PSNH 2013 Energy Service Rate Calculation Fossil/Hydro Payroll Tax

(thousands of dollars)

	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Total
Merrimack Station Schiller Station Newington Hydro	118 67 30 <u>34</u> 248	108 61 27 31 226	93 53 23 26 195	101 57 26 29 213	140 79 35 40 294	23 13 6 7 49	96 54 24 27 202	92 52 23 <u>26</u> 193	91 51 23 26 190	131 74 33 <u>37</u> 275	86 48 22 24 180	80 45 20 23 168	Total 1,158 654 292 <u>329</u> 2,433

(1) Payroll Tax was allocated by station using O&M as the basis.

Amounts shown above may not add due to rounding.

DE 12-292 PSNH 2013 Energy Service Rate Testimony of Eckberg Attachment SRE-3

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Data Request STAFF-01 Dated: 10/24/2012 Q-STAFF-004 Page 6 of 6

PSNH 2013 Energy Service Rate Calculation Fossil/Hydro Asset Retirement Obligation

(thousands of dollars)

	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec 13	Total
Merrimack Station Schiller Station Newington Hydro ICU	27 23 2 2 2 3	27 23 · 2 2 3	27 23 2 2 2 3	27 24 2 2 3	27 24 2 2 3	27 24 2 2 3	28 24 2 2 3	Aug-13 28 24 2 2 2 3	Sep-13 2 24 2 3	Oct-13 29 25 2 2 2 3	Nov-13 29 25 2 2 3		Total 332 290 23 21 36
	57	57	57	58	58	58	59	59	59	60	60	60	703

Amounts shown above may not add due to rounding.

DE 12-292 PSNH 2013 Energy Service Rate Testimony of Eckberg Attachment SRE-3 Public Service Company of New Hampshire Docket No. DE 11-215

Data Request STAFF-01

Dated: 10/28/2011 Q-STAFF-002 Page 1 of 6

Witness:Robert A. BaumannRequest from:New Hampshire Public Utilities Commission Staff

Question:

Regarding September 23, 2011 Filing. Reference Attachment RAB-2; page 5. Please break down the amounts shown in the table by a) generating plant and b) by individual unit (if available) in a format similar to the response to STAFF-01, Q-STAFF-003 in DE 10-257. For purposes of this question, the hydro units and the combustion turbines can be shown as separate groups.

Response:

Pages 2 through 6 contain the requested monthly breakout, by plant, of the 2012 forecasted Fossil/Hydro O&M, Depreciation, Property tax, Payroll tax and ARO detail.

Data Request STAFF-01 Dated: 10/28/2011 Q-STAFF-002 Page 2 of 6

PSNH 2012 Energy Service Rate Calculation Fossil/Hydro O&M

(thousands of dollars)

F/H O&M Cost	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Total
Merrimack Station (1) Schiller Station Newington Station Hydro Plants	4,604 1,839 1,075 474 7,992	3,966 1,588 870 407 6,831	3,921 1,942 979 529 7,372	3,480 4,083 1,724 439 9,726	3,944 1,585 870 1,027 7,425	3,779 1,530 838 1,706 7,852	3,794 1,535 895 1,901 8,124	3,837 1,553 851 1,815 8,056	3,764 3,423 944 968 9,099	3,757 3,504 886 431 8,577	4,007 1,620 889 446 6,962	4,002 1,617 887 429 6,936	46,854 25,820 11,708 <u>10,571</u> 94,953

(1) Excludes O&M costs associated with the Merrimack Scrubber which were filed separately.

Amounts shown above may not add due to rounding.

Data Request STAFF-01 Dated: 10/28/2011 Q-STAFF-002 Page 3 of 6

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PSNH 2011 Energy Service Rate Calculation Fossil/Hydro Depreciation

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(thousands of dollars)

	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Total
F/H Depreciation				•									
Merrimack Station	338	338	338	338	338	338	338	338	338	338	338	338	4 05 4
Newington Station	744	744	744	744	744	744	744	744	744	744	336 744	336 744	4,054 8,925
Schiller Station	598	598	598	598	598	598	598	598	598	598	598	598	7,173
Wyman	14	14	14	14	14	14	14	14	14	14	14	14	167
Hydro Combustion Turbines	113	113	113	113	113	113	113	113	113	113	113	113	1,359
General Plant/Intangible	46	46	46	46	46	46	46	46	46	46	46	46	556
General Flahtmangible	31	24	25	25	26	27	28	29	35	35	44	46	370
	1,877	1,877	1,878	1,878	1,879	1,880	1,881	1,882	1,888	1,888	1,897	1,899	22,604

Amounts shown above may not add due to rounding.

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DE 12-292 PSNH 2013 Energy Service Rate Testimony of Eckberg Attachment SRE-4

Data Request STAFF-01 Dated: 10/28/2011 Q-STAFF-002 Page 4 of 6

PSNH 2012 Energy Service Rate Calculation Fossil/Hydro Asset Retirement Obligation

(thousands of dollars)

	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec 12	T -4-1
Merrimack Station Schiller Station Newington Hydro ICU	25 22 2 2 3 52	25 22 2 2 3 52	25 22 2 2 3 52	25 22 2 2 3 53	25 22 2 2 3 53	25 22 2 2 3 53	26 22 2 2 3 54	26 22 2 2 3 54	26 22 2 2 3 54	26 23 2 2 3 56	26 23 2 2 3 56	Dec-12 26 23 2 2 2 3 56	Total 307 267 21 20 33 647

Amounts shown above may not add due to rounding.

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Data Request STAFF-01 Dated: 10/28/2011 Q-STAFF-002 Page 5 of 6

PSNH 2012 Energy Service Rate Calculation Fossil/Hydro Property Tax

(thousands of dollars)

| | Jan-12 | Jan-12 | Ján-12 | Jan-12 | Total |
|--|--------------------------------------|--------------------------------------|--------------------------------------|---|---|---|---|---|---|---|---|---|---|
| Merrimack Station
Schiller Station
Newington
Hydro
Combustion Turbines | 285
162
77
202
92
818 | 285
162
77
202
92
818 | 285
162
77
202
92
818 | 353
201
95
251
114
1,015 | 4,035
2,293
1,087
2,866
1,307
11,587 |

(1) Property Tax allocated to stations based on most current tax information available.

Amounts shown above may not add due to rounding.

Data Request STAFF-01 Dated: 10/28/2011 Q-STAFF-002 Page 6 of 6

PSNH 2012 Energy Service Rate Calculation Fossil/Hydro Payroll Tax

(thousands of dollars)

	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Total
										00(12	1404-12	D60-12	Total
Merrimack Station	125	114	137	58	89	81	78	79	98	63	85	78	4.005
Schiller Station	50	46	68	68	36	33	32	32	89				1,085
Newington	29	25	34	29	20	18	19	18	24	59 15	34	31	577
Hydro	13	12	19	7	23	36	39	37	24	15	19	17	266
ICU	-	-	-	-	_	-	-		25	1	9	8	237
	217	196	258	160	407	100				-	-	-	-
	211	130	200	162	167	168	168	166	236	144	148	135	2,165

(1) Payroll Tax was allocated by station using Direct O&M as the basis.

Amounts shown above may not add due to rounding.

Public Service Company of New Hampshire Docket No. DE 11-215 **Technical Session TS-02**

Dated: 12/16/2011 Q-TECH-003 Page 1 of 1

Witness:Robert A. Baumann,William H. SmagulaRequest from:New Hampshire Public Utilities Commission Staff

Question:

Please provide an explanation for the change to depreciation referenced in item D of the December 14, 2011 technical statement, and shown on Attachment RAB-2, Page 5 of the both the September 23, 2011 filing and the December 14, 2011 filing.

Response:

The decrease in depreciation expense is \$4.797 or \$4.8 million as noted in the revised Joint Technical Statement filed December 14, 2011. The total depreciation value in the initial September 23, 2011 filing on Attachment RAB-5, page 5 was \$22,604,000 which was revised in the December 14 update to \$17,807,000. The reason for the decrease in depreciation expense is due to a change in the Average Year of Final Retirement (AYFR) for some of the generating stations. Please see the changes as noted below.

	Current	Assumed
Station	Year	Year
1. Wyman	2011	2021
2. Newington		2039
3. Lost Nation	2012	2017
4. MMk Jet	2012	2017
5. Schiller Jet	2012	2017
6. White Lake	2012	2017
7. Merrimack	2023	2038
8. Schiller	2020	2020

Public Service Company of New Hampshire Docket No. DE 12-292 Data Request STAFF-01 Dated: 10/24/2012 Q-STAFF-003 Page 1 of 1

Witness:Robert A. BaumannRequest from:New Hampshire Public Utilities Commission Staff

Question:

Reference Baumann testimony, page 7, lines 10-14. Please provide all analyses supporting the conclusion that the NWPP revenue targets will continue to be met regardless of the changes in the REC markets.

Response:

The NWPP revenue targets have been satisfied in the past by using a sum of REC revenues, the production tax credits and avoided costs associated with RGGI compliance. PSNH expects the overall value of these revenues and credits to continue to exceed the revenue target in the foreseeable future. The NWPP revenue target decreases each year by about \$0.5 million, with 2013 having a target of \$6.5 Million; the 2014 target is \$6 million; the 2015 target is \$5.5 million and so on. Therefore, PSNH can meet the 2013 revenue target with REC revenues alone if the price per REC is at or above \$21/REC with output of 309,000 MWH. PSNH's 9/28/12 filing had forecasted the REC prices to be over \$57/REC, meeting and exceeding the NWPP revenue target with REC revenues alone. Given the lower revenue target each year, the REC price can decrease by about \$1.50/REC each year starting 2014 and PSNH would still meet that year's revenue target with REC revenues alone. For example, if the REC price is at \$19.50/REC in 2014, then that will be sufficient to generate \$6 million in REC revenues to meet the 2014 target [309,000 x \$19.50/REC]. Also see the response to OCA-02, Q-OCA-012 in DE 12-116 for historical REC revenue values.

Beginning in 2016, existing facilities must meet at a minimum, an efficiency standard of 50% in Massachusetts. At that time, PSNH expects that it will be impossible for NWPP to qualify, therefore, PSNH will be unable to sell into the MA market under the proposed rules. PSNH currently sells a portion of its RECs to RI and NH parties with the remaining RECs being sold to MA. If the MA market is no longer viable, then PSNH can market its RECs to other states and increase its sales to RI and NH.