STATE OF NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

DE 10-261

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE 2010 LEAST COST INTEGRATED RESOURCE PLAN

NEW HAMPSHIRE SIERRA CLUB OBJECTION TO PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE MOTION TO STRIKE THE TESTIMONY OF DR. RANAJIT SAHU

LEGISLATIVE BACKGROUND

RSA Chapter 378 Least Cost Energy Planning declares the energy policy of New Hampshire.

RSA 378:37 requires that the energy needs of the state be provided at the lowest reasonable cost while providing for reliability and diversity of energy sources; the protection of the safety and health of the citizens; the physical environment; together with future supplies of nonrenewable resources and consideration of the financial stability of the state's utilities.

RSA 378:39 requires that each electric utility file a least cost integrated resource plan at least biennially that includes, *inter alia*, an assessment of plan integration and impact on state compliance with the Clean Air Act Amendments of 1990 and an assessment of the plan's long and short term environmental, economic and energy price and supply impact on the state.

RSA 378:39 requires the Commission to review the least cost integrated resource plan to evaluate the adequacy of the planning process. The statute requires that the Commission consider the potential environmental, economic and health related impacts of each option.

PROCEDURAL HISTORY

The New Hampshire Sierra Club [NHSC] served Data Requests on Public Service Company of New Hampshire [PSNH] to elicit RSA Chapter 378 information about PSNH planning for pending environmental programs and their related costs. [Exhibit A attached hereto].

Each and every NHSC Data Request relates to the Clean Air Act Amendments of 1990, RSA 125-O, the New Hampshire Multi-Pollutant Reduction Act and the Clean Water Act.

The PSNH responses to the Data Requests were deficient. The responses, if factual, demonstrate a serious lack of planning. [Exhibit B attached hereto].

For example, Data Request 1 asked for information regarding the Regional Haze State Implementation Plan [SIP] and the cost calculations that PSNH submitted to the New Hampshire Department of Environmental Services, Air Resources Division [NHDES-ARD]. PSNH had submitted cost calculations to NHDES-ARD regarding the Best Available Retrofit Technology [BART] for its Regional Haze eligible electric generating unit MK2 for NOx emissions as part of its Clean Air Act obligations.

PSNH, rather than providing a forthright explanation of its BART cost calculations for the Regional Haze program, objected to the Data Request, and argued that NHSC was asking the Commission to allow discovery to further a NHSC litigation strategy. The NHSC purpose was to determine whether or not PSNH was adequately planning for the Regional Haze SIP and whether its BART cost calculations were trustworthy. The Data Request was not a litigation tactic. The Commission denied the NHSC Motion to Compel in error. [Order 25,220].

The Commission should note the PSNH responses to NHSC Data Requests 9 and 11. In September this year, EPA Region 1 announced the issuance of the Draft Merrimack Station NPDES Permit for the Merrimack Station discharge of waste heat to the Merrimack River, its withdrawals of river water for plant cooling needs, and its discharge to the river of mercury, arsenic, selenium and other pollutants. The Draft Permit also addresses the wastewater discharge expected from the scrubber. [The existing NPDES Permit expired on June 25, 1997]. EPA has projected that the NPDES permit plant modifications will cost \$112,000,000. The PSNH responses to these NHSC Data Requests are unworthy of belief. PSNH cannot credibly argue that it had not analyzed the cost and environmental consequences of its cooling water withdrawals and discharge and its treatment of the scrubber wastewater while operating under a 13 year old NPDES permit.

NHSC Data Requests 7 and 8 are timely and relevant to this planning docket. The Requests address PSNH planning for the anticipated costs of the removal of air toxics, including mercury under both RSA 125-O and the expected EPA Clean Air Act Maximum Achievable Control Technology [MACT] emission standard.¹ The PSNH responses are unacceptable.

The PSNH failure to respond to Data Requests regarding its planning for pending regulatory programs caused NHSC to engage the expert services of Dr. Ranajit Sahu.

EXPERT REPORT OF DR. RANAJIT SAHU

Dr. Sahu has a B.S., M.S. and Ph. D. in mechanical engineering with research specialization in the combustion of coal and understanding of the air pollution aspects of coal combustion in power. [Expert Report, page 1]. He has over 20 year's experience in program and project management

¹ EPA announced the air toxics rule on December 21, 2011. The rule applies to each of the PSNH fossil units.

and the design and specification of pollution control equipment, regulatory compliance with the Clean Air Act, the Clean Water Act, including NSR/PSD permitting², Title V permitting, human health risks for toxics³, air dispersion modeling and regulatory strategy development.

Dr. Sahu has the expertise to explain environmental programs and their specific applicability to Merrimack Station. His regulatory analysis is relevant and of substantive value to the Commission in the least cost energy planning process mandated by RSA Chapter 378.

Dr. Sahu notes that while the timing for some of the regulations is more certain than others, it is his opinion that a "prudent power plant operator such as PSNH should be carefully analyzing the potential impacts of all of these regulations [and, perhaps, others at the state level] that may affect operations at Merrimack."

OBJECTION

NHSC objects to the Motion to Strike the Expert report of Dr. Ranajit Sahu and respectfully requests that it be denied.

12/22/11

Respectfully submitted,

Arthur B. Cunningham Attorney for the New Hampshire Sierra Club PO Box 511, Hopkinton, NH 03229 603-746-2196 [o]; 603-491-8629 [c] <u>gilfavor@comcast.net</u>

No.18301

Certificate of Service

New Hampshire Sierra Club served this Motion pursuant to Puc 203.09.

Arthur B. Cunningham

² NHSC has petitioned the Administrator, EPA, challenging the Merrimack Station Title V on the grounds that PSNH did not obtain the preconstruction permits to assure compliance with NSR/PSD requirements under the CAA for the major modifications made to the plant in 2008 and subsequent years. The challenge is pending.

STATE OF NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

DE 10-261

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE 2010 LEAST COST INTEGRATED RESOURCE PLAN

FIRST DATA REQUEST OF THE NEW HAMPSHIRE SIERRA CLUB

New Hampshire Sierra Club [NHSC], pursuant to Puc 203.09, hereby submits the following data requests to Public Service Company of New Hampshire [PSNH].

INTRODUCTION

On July 9, 2010, in response to a Request for Additional Information from New Hampshire Department of Environmental Services- Air Resources Division [NHDES-ARD] regarding the Best Available Retrofit Technology [BART] for MK2 to ensure NOx compliance with the pending Regional Haze State Implementation Plan [SIP], PSNH provided a cost analysis to reduce NOx emissions from .37#/mmBTU to .34#/mmBTU. PSNH represented to NHDES-ARD that because of "increased maintenance costs and replacement power costs", the increased cost of replacement power could range from \$720,000 to \$3,300,000 assuming a \$30/mwhr difference between the cost of Merrimack Station and replacement power costs at market. PSNH calculated that the cost per ton of NOx reduction would be extremely costly ranging from \$1,578 to \$3,068 per ton. The calculations also showed that the duration of the outages, the number of outages, and, an increase in the cost delta would significantly increase the costs of compliance.

On August 16, 2010, PSNH provided "supplemental" calculations to NHDES-ARD regarding the cost of reducing the emission limit from .37#/mmBTU to .34#/mmBTU again assuming the \$30/mmhr cost delta. PSNH argued again that adjusting the NOx rate "will significantly increase the incremental costs of compliance without significantly decreasing total NOx emissions." In the August 16, 2010, calculations PSNH asserted that the cost per ton would be \$7,359.¹

On December 15, 2010, PSNH submitted a response to a NHDES-ARD request for information that asked for an analysis of a NOx reduction to .30#/mmBTU calculated on a 30 day rolling average.² In this calculation, PSNH asserted that the cost per ton to reduce NOx emissions to .30#/mmBTU would be \$826 per ton, an <u>amount \$6,533 less</u>



¹ The July 9, 2010, and the August 16, 2010, PSNH submissions to NHDES-ARD were filed as "Confidential Business Information". NHSC objected and NHDES-ARD ordered release of the documents.

² The earlier calculations were made on a calendar monthly average.

than the calculation provided on August 16, 2010, for the reduction to .34#/mmBTU. PSNH further calculated that a reduction to .25#-.30#/mmBTU would cost \$7,600 per ton.

DATA REQUESTS

1. Please fully explain the assumptions used to establish the \$30/mmwh difference between the cost of Merrimack Station and the costs of replacement power on the market used throughout the Regional Haze BART emission limit calculations;

2. Please reconcile the inconsistent cost per ton compliance calculations in the July 9, 2010, August 16, 2010, and December 15, 2010, submissions to NHDES-ARD;

3. In order for the public to ensure the factual integrity of the PSNH Regional Haze MK2 BART cost calculations by independent analysis, please provide the following information [in electronic format, native language, to the extent feasible]³:

a. Coal specifications for last 5 years and coal expected to be burned in the future;

b. NERC GADS data (design, event, performance) for the last 5 years;

c. Design information on current low NOx burners, over-fire air, and combustion controls;

d. Copies of all performance test reports involving low-NOx burners, over-fire air, combustion controls for the last 5 years;

e. Design information on current SCR catalysts, including catalyst degradation information;

f. Name and address of SCR catalyst supplier;

g. Copy of SCR catalyst management plan;

h. Dates when SCR catalysts were changed in each of the layers in the last 5 years;

i. Status of catalyst by-pass dampers and current manner in which they are operated and copies of work orders or projects undertaken to fix any damper bypass problems in the last 5 years;

j. Details of SCR temperature permissive and logic when catalyst bypass is used;

³ MK2 is a BART eligible generating unit.

k. Details of all air pre-heater cleaning events in last 5 years together with details of logic used to trigger the cleaning;

l. Copies of all stack tests in the last 5 years in which the NOx at boiler outlet (i.e., SCR inlet) was measured;

m. Copies of plant process data showing SCR inlet NOx data, ammonia feed data, and ammonia slip data;

n. Soot-blowing details – figure showing locations and names of all soot-blowers in boiler and for each SCR catalyst later, and elsewhere; logic that is used to trigger soot-blowing events in boiler and for SCR catalysts; and, compilation of soot-blowing events (start, duration) for last 5 years;

o. Copies of all CEMS RATA tests for NOx, SO2, CO, O2, etc. for last 5 years;

p. Copies of any ASTM boiler efficiency tests conducted in last 5 years;

q. Copies of boiler operating manual and SCR operating manual;

4. The proposed⁴ Regional Haze BART NOx limit of .30#/mmBTU for MK2 as described in the Introduction above is three times higher than the presumptive reduction norm of .10#/mmBTU in EPA Guidance at 40 CFR 51, Appendix Y. Please provide detailed calculations of the costs necessary to satisfy the .10 #/mmBTU emission reduction;

5. On March 17, 2008, EPA issued a finding that New Hampshire missed the Clean Air Act deadline for submitting complete plans showing how the state will meet the 1997 ozone standards. The plan was to include an attainment demonstration⁵; a reasonable progress plan; and, a reasonably available control technology plan [RACT]. On January 19, 2010, determined that the states must submit their attainment designations to EPA by January 7, 2011, for the primary ozone standard [1 hour] and August 31, 2011, for the secondary standard. F. Reg., Vol. 75, No. 11. Has PSNH planned for compliance with these deadlines for Merrimack Station? For Schiller? For Newington? Has PSNH done a cost analysis for compliance for Merrimack Station? For Schiller? For Newington? If yes, please provide the analyses. If no, please provide such analyses;

⁴ NHDES-ARD submitted the revised Regional Haze SIP to EPA Region 1 on January 14, 2011.

⁵ A large part of southern New Hampshire has not attained the NAAQS for ozone and a substantial portion of the nonattainment area is in serious non-attainment. The ozone NAAQS are required to provide protection of the public health against an array of ozone related adverse health effects that range from decreased lung function and respiratory symptoms to serious indicators of respiratory morbidity including emergency room visits and hospital admissions for respiratory causes; cardiovascular related morbidity; and, cardiopulmonary mortality.

6. EPA is expected to issue a final ozone air quality standard in July, 2011. Has PSNH done any examination or studies of the anticipated new ozone rule, including the costs of compliance? If yes, please provide such information. If no, please provide a detailed explanation why such information should not be made part of this Least Cost Integrated Resource Plan;

7. EPA is expected to issue a proposed power plant Maximum Achievable Control Technology [MACT] standard for air toxics including mercury in March, 2011, and, the final rule in November, 2011. Has PSNH done any examination or studies of the anticipated MACT standard, including the costs of compliance? If yes, please provide such information. If no, please provide a detailed explanation why such information should not be made part of this Least Cost Integrated Resource Plan;

8. On February 17, 2011, NHDES-ARD published a Preliminary Determination of Baseline Mercury Input pursuant to RSA 125-O:14, I. The preliminary determination for baseline mercury input for Merrimack Station and Schiller is 228 pounds of mercury per year. The 80% reduction shall require that mercury emissions be 46 pounds per year, beginning July 1, 2013. Has PSNH planned for compliance with this mercury baseline for Merrimack Station? For Schiller? Has PSNH done a cost analysis for compliance for Merrimack Station? For Schiller? If yes, please provide the analyses. If no, please provide such a cost analyses. EPA will likely propose a MACT standard for mercury that is more stringent than the 80% reduction required by RSA 125-O:14, I. Has PSNH done any examination or studies of the anticipated more stringent MACT standard, including the costs of compliance? If yes, please provide such information. If no, please provide a detailed explanation why such information should not be made part of this Least Cost Integrated Resource Plan;

9. EPA is expected to issue proposed rule for cooling water intake in March, 2011. Has PSNH done any examination or studies of the anticipated rule, including the costs of compliance? If yes, please provide such information. If no, please provide a detailed explanation why such information should not be made part of this Least Cost Integrated Resource Plan;

10. EPA is expected to issue a final rule for the disposal of coal ash in late 2011. Has PSNH done any examination or studies of the anticipated rule, including the costs of compliance? If yes, please provide such information. If no, please provide a detailed explanation why such information should not be made part of this Least Cost Integrated Resource Plan;

11. EPA is expected to issue a proposed rule establishing effluent guidelines for ash/scrubber wastewater discharges in mid-year 2012. Has PSNH done any examination or studies of the anticipated rule, including the costs of compliance? If yes,

please provide such information. If no, please provide a detailed explanation why such information should not be made part of this Least Cost Integrated Resource Plan;

12. In order for the public to ensure that the PSNH fossil generating units are providing safe and reliable service as required by RSA 369:1 and <u>Appeal of Easton</u>, 125 N.H. 205 [1984], please detail the portion of the capital and operating costs of Merrimack Station that is attributable to pollution control compliance because of the emissions of criteria pollutants, including, but not limited to, SO2, NOx, particulates and the hazardous air pollutant mercury from the combustion of coal? Please fully detail the accounting basis of how these costs are booked. Please detail how these costs are recovered. Please describe each and every anticipated pollution control compliance obligation, including, but not limited to those detailed at 1-11 above. Please detail the projected capital and operating costs of those obligations. Please fully detail the cost accounting basis of how these costs will be booked. Please detail how these costs as a line item in its books and records, please explain why not. If PSNH has not projected anticipated pollution control compliance pollution control compliance costs, please explain why not.

Respectfully submitted,

Arthur B. Cunningham Attorney for the New Hampshire Sierra Club PO Box 511, Hopkinton, NH 03229 603-746-2196 [o]; 603-491-8629 [c] <u>gilfavor@comcast.net</u>

No.18301

Certificate of Service

New Hampshire Sierra Club served notice of the filing of this Data Request pursuant to Puc 203.09.

Arthur B. Cunningham



Public Service of New Hampshire

PSNH Energy Park 780 North Commercial Street, Manchester, NH 03101

Public Service Company of New Hampshire P.O. Box 330 Manchester, NH 03105-0330 (603) 669-4000 www.psnh.com

The Northeast Utilities System

March 18, 2011

Attorney Arthur B. Cunningham Attorney for the NH Sierra Club PO Box 511 Hopkinton, NH 03229

Catherine Corkery NH Sierra Club 40 North Main Street, 2nd Floor Concord, NH 03301

Re: Docket No. DE 10-261 - PSNH 2010 Least Cost Integrated Resource Plan

Dear Attorney Cunningham and Ms. Corkery:

This letter provides responses to the requests for information listed below.

<u>Response to NHSC-01 Interrogatories dated 02/23/2011</u> NHSC-004, 005, 006, 007, 008, 009, 010, 011, 012

The remaining responses will be provided when completed.

Very truly yours,

Stephen R. Hall, Manager Rate & Regulatory Services

cc: Service List - Electronic Copies Only



PURSUANT TO N.H. ADMIN RULE PUC 203.09 (d), FILE DISCOVERY

DIRECTLY WITH THE FOLLOWING STAFF

RATHER THAN WITH THE EXECUTIVE DIRECTOR

LIBRARIAN - DISCOVERY NHPUC 21 S. FRUIT ST, SUITE 10 CONCORD NH 03301-2429

BULK MATERIALS:

Upon request, Staff may waive receipt of some of its multiple copies of bulk materials filed as data responses. Staff cannot waive other parties' right to receive bulk materials.

EDWARD DAMON NHPUC 21 S. FRUIT ST, SUITE 10 CONCORD NH 03301-2429

GEORGE MCCLUSKEY NHPUC 21 S. FRUIT ST, SUITE 10 CONCORD NH 03301-2429

ALEXANDER SPEIDEL NHPUC 21 S. FRUIT ST, SUITE 10 CONCORD NH 03301-2429

AMANDA NOONAN CONSUMER AFFAIRS DIRECTOR NHPUC 21 S. FRUIT ST, SUITE 10 CONCORD NH 03301-2429

Docket #: 10-261-1 Printed: March 18, 2011

ARTHUR B CUNNINGHAM LAW OFFICES OF ARTHUR B CUNNINGHAM PO BOX 511 HOPKINTON NH 03229

ALLEN DESBIENS PUBLIC SERVICE COMPANY OF NEW HAMF 780 N COMMERCIAL ST PO BOX 330 MANCHESTER NH 03105-0330

GERALD M EATON PUBLIC SERVICE COMPANY OF NEW HAMF 780 N COMMERCIAL ST PO BOX 330 MANCHESTER NH 03105-0330

RACHEL A GOLDWASSER ORR & RENO PA PO BOX 3550 CONCORD NH 03302-3550

DORENE HARTFORD CONSERVATION LAW FOUNDATION 27 NORTH MAIN ST CONCORD NH 03301

MEREDITH A HATFIELD OFFICE OF CONSUMER ADVOCATE 21 SOUTH FRUIT ST STE 18 CONCORD NH 03301

SANDI HENNEQUIN NEW ENGLAND POWER GENERATORS ASS(141 TREMONT ST BOSTON MA 02111 MELISSA HOFFER CONSERVATION LAW FOUNDATION 27 N MAIN ST CONCORD NH 03302

CHRISTINA MARTIN OFFICE OF CONSUMER ADVOCATE 21 SOUTH FRUIT ST STE 18 CONCORD NH 03301

HOWARD M MOFFETT ORR & RENO PA I EAGLE SQ PO BOX 3550 CONCORD NH 03302

K NOLIN PUBLIC SERVICE COMPANY OF NEW HAMF PO BOX 330 MANCHESTER NH 03105

ANGELA O'CONNOR NEW ENGLAND POWER GENERATORS ASS(141 TREMONT ST 6TH FLR BOSTON MA 02111

DOUGLAS L PATCH ORR & RENO PA ONE EAGLE SQ PO BOX 3550 CONCORD NH 03302

N JONATHAN PERESS CONSERVATION LAW FOUNDATION 27 NORTH MAIN ST CONCORD NH 03301-4930

Docket #: 10-261-1 Printed: March 18, 2011

FILING INSTRUCTIONS:

a) Pursuant to N.H. Admin Rule Puc 203.02 (a), with the exception of Discovery, file 7 copies, as well as an electronic copy, of all documents including cover letter with: DEBRA A HOWLAND

DEBRA A HOWLAND EXEC DIRECTOR & SECRETARY NHPUC 21 S. FRUIT ST, SUITE 10 CONCORD NH 03301-2429

- b) Serve an electronic copy with each person identified on the Commission's service list and with the Office of Consumer Advocate.
- c) Serve a written copy on each person on the service list not able to receive electronic mail.

JAMES T RODIER ATTORNEY-AT-LAW 1500 A LAFAYETTE RD NO 112 PORTSMOUTH NH 03801-5918

MAUREEN SMITH ORR & RENO PC

ERIC STELTZER OFFICE OF ENERGY AND PLANNING 4 CHENELL DRIVE CONCORD NH 03301

KEN E TRAUM OFFICE OF CONSUMER ADVOCATE 21 SOUTH FRUIT ST STE 18 CONCORD NH 03301-2429

Data Request NHSC-01 Dated: 02/23/2011 Q-NHSC-004 Page 1 of 1

Witness:William H. SmagulaRequest from:Sierra Club, New Hampshire Chapter

Question:

The proposed Regional Haze BART NOx limit of .30#/mmBTU for MK2 as described in the Introduction above is three times higher than the presumptive reduction norm of .10#/mmBTU in EPA Guidance at 40 CFR 51, Appendix Y. Please provide detailed calculations of the costs necessary to satisfy the .10 #/mmBTU emission reduction;

(NHDES-ARD submitted the revised Regional Haze SIP to EPA Region 1 on January 14, 2011.)

Response:

Data Request NHSC-01 Dated: 02/23/2011 Q-NHSC-005 Page 1 of 1

Witness:	William H. Smagula
Request from:	Sierra Club, New Hampshire Chapter

Question:

On March 17, 2008, EPA issued a finding that New Hampshire missed the Clean Air Act deadline for submitting complete plans showing how the state will meet the 1997 ozone standards. The plan was to include an attainment demonstration; a reasonable progress plan; and, a reasonably available control technology plan [RACT]. On January 19, 2010, determined that the states must submit their attainment designations to EPA by January 7, 2011, for the primary ozone standard [1 hour] and August 31, 2011, for the secondary standard. F. Reg., Vol. 75, No. 11. Has PSNH planned for compliance with these deadlines for Merrimack Station? For Schiller? For Newington? Has PSNH done a cost analysis for compliance for Merrimack Station? For Schiller? For Newington? If yes, please provide the analyses. If no, please provide such analyses;

(A large part of southern New Hampshire has not attained the NAAQS for ozone and a substantial portion of the non-attainment area is in serious non-attainment. The ozone NAAQS are required to provide protection of the public health against an array of ozone related adverse health effects that range from decreased lung function and respiratory symptoms to serious indicators of respiratory morbidity including emergency room visits and hospital admissions for respiratory causes; cardiovascular related morbidity; and, cardiopulmonary mortality.)

Response:

Data Request NHSC-01 Dated: 02/23/2011 Q-NHSC-006 Page 1 of 1

Witness:	William H. Smagula
Request from:	Sierra Club, New Hampshire Chapter

Question:

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EPA is expected to issue a final ozone air quality standard in July, 2011. Has PSNH done any examination or studies of the anticipated new ozone rule, including the costs of compliance? If yes, please provide such information. If no, please provide a detailed explanation why such information should not be made part of this Least Cost Integrated Resource Plan;

Response:

Data Request NHSC-01 Dated: 02/23/2011 Q-NHSC-007 Page 1 of 1

Witness:	William H. Smagula
Request from:	Sierra Club, New Hampshire Chapter

Question:

EPA is expected to issue a proposed power plant Maximum Achievable Control Technology [MACT] standard for air toxics including mercury in March, 2011, and, the final rule in November, 2011. Has PSNH done any examination or studies of the anticipated MACT standard, including the costs of compliance? If yes, please provide such information. If no, please provide a detailed explanation why such information should not be made part of this Least Cost Integrated Resource Plan;

Response:

Data Request NHSC-01 Dated: 02/23/2011 Q-NHSC-008 Page 1 of 1

Witness:	William H. Smagula
Request from:	Sierra Club, New Hampshire Chapter

Question:

On February 17, 2011, NHDES-ARD published a Preliminary Determination of Baseline Mercury Input pursuant to RSA 125-O:14, I. The preliminary determination for baseline mercury input for Merrimack Station and Schiller is 228 pounds of mercury per year. The 80% reduction shall require that mercury emissions be 46 pounds per year, beginning July 1, 2013. Has PSNH planned for compliance with this mercury baseline for Merrimack Station? For Schiller? Has PSNH done a cost analysis for compliance for Merrimack Station? For Schiller? If yes, please provide the analyses. If no, please provide such a cost analyses. EPA will likely propose a MACT standard for mercury that is more stringent than the 80% reduction required by RSA 125-O:14, I. Has PSNH done any examination or studies of the anticipated more stringent MACT standard, including the costs of compliance? If yes, please provide such information. If no, please provide a detailed explanation why such information should not be made part of this Least Cost Integrated Resource Plan;

Response:

As the question points out, NHDES-ARD published its preliminary determination on February 17, 2011, well after the Least Cost Integrated Resource Plan was issued on September 30, 2010. As a result, PSNH has no information in the plan that is pertinent to the question posed. Additionally, PSNH notes that the determination is preliminary, and subject to review and appeal, and therefore is not final. As part of its Least Cost Integrated Resource planning process, PSNH does not prepare analyses or scenarios based upon possible regulatory rules or outcomes, such as proposed limits, nor has PSNH otherwise performed the requested calculations. Therefore, no such analyses were contained in the Least Cost Integrated Resource Plan filed by PSNH on September 30, 2010, and as a result PSNH does not have information responsive to the question posed.

Data Request NHSC-01 Dated: 02/23/2011 Q-NHSC-009 Page 1 of 1

Witness:	William H. Smagula
Request from:	Sierra Club, New Hampshire Chapter

Question:

EPA is expected to issue proposed rule for cooling water intake in March, 2011. Has PSNH done any examination or studies of the anticipated rule, including the costs of compliance? If yes, please provide such information. If no, please provide a detailed explanation why such information should not be made part of this Least Cost Integrated Resource Plan;

Response:

Data Request NHSC-01 Dated: 02/23/2011 Q-NHSC-010 Page 1 of 1

Witness:	William H. Smagula
Request from:	Sierra Club, New Hampshire Chapter

Question:

EPA is expected to issue a final rule for the disposal of coal ash in late 2011. Has PSNH done any examination or studies of the anticipated rule, including the costs of compliance? If yes, please provide such information. If no, please provide a detailed explanation why such information should not be made part of this Least Cost Integrated Resource Plan;

Response:

Data Request NHSC-01 Dated: 02/23/2011 Q-NHSC-011 Page 1 of 1

Witness:William H. SmagulaRequest from:Sierra Club, New Hampshire Chapter

Question:

EPA is expected to issue a proposed rule establishing effluent guidelines for ash/scrubber wastewater discharges in mid-year 2012. Has PSNH done any examination or studies of the anticipated rule, including the costs of compliance? If yes, please provide such information. If no, please provide a detailed explanation why such information should not be made part of this Least Cost Integrated Resource Plan;

Response:

Data Request NHSC-01 Dated: 02/23/2011 Q-NHSC-012 Page 1 of 1

Witness:	Terrance J. Large, William H. Smagula
Request from:	Sierra Club, New Hampshire Chapter

Question:

In order for the public to ensure that the PSNH fossil generating units are providing safe and reliable service as required by RSA 369:1 and Appeal of Easton, 125 N.H. 205 [1984], please detail the portion of the capital and operating costs of Merrimack Station that is attributable to pollution control compliance because of the emissions of criteria pollutants, including, but not limited to, SO2, NOx, particulates and the hazardous air pollutant mercury from the combustion of coal? Please fully detail the accounting basis of how these costs are booked. Please detail how these costs are recovered. Please describe each and every anticipated pollution control compliance obligation, including, but not limited to those detailed at 1-11 above. Please detail the projected capital and operating costs of those obligations. Please fully detail the cost accounting basis of how these costs will be booked. Please detail how these costs as a line item in its books and records, please explain why not. If PSNH has not projected anticipated pollution control compliance costs, please explain why not.

Response:

PSNH does not have the information requested by NHSC. Environmental compliance costs are included in the total capital and operating expenditures made by a facility. It would be overly burdensome and likely inaccurate to attempt to define each dollar spent as either pollution control compliance or not, since PSNH has no requirement nor business need to uniquely allocate each dollar spent. PSNH is required to provide data in its possession; however, it is not required to perform studies to make the case for an intervenor.

In general, operating and maintenance expenses associated with PSNH's fossil generating units are booked on a monthly basis and recovered from customers through the Energy Service rate. Capital investments are added to rate base once a project is in service and are recovered through the Energy Service rate. See CLF-01, Q-CLF-023 for further discussion on investments in emission control equipment.