

STATE OF NEW HAMPSHIRE  
PUBLIC UTILITIES COMMISSION

DE 10-121

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
RECONCILIATION OF ENERGY SERVICE AND STRANDED COSTS FOR  
CALENDAR YEAR 2009

NEW HAMPSHIRE SIERRA CLUB REPLY TO THE PUBLIC SERVICE  
COMPANY OF NEW HAMPSHIRE OBJECTION TO DATA REQUESTS

August 5, 2010

STATUS OF DISCOVERY

On July 16, 2010, New Hampshire Sierra Club [NHSC] timely submitted Data Requests to Public Service Company of New Hampshire [PSNH]. PSNH, on July 23, 2010, PSNH filed Objections to the Data Requests. On July 28, 2010, NHSC filed a Motion to Compel. On July 29, 2010, PSNH filed partial responses to the Data Requests. On August 2, 2010, PSNH filed Objection to the Motion to Compel.

Based upon the responses provided by PSNH on July 29, 2010, NHSC withdraws its Motion to Compel with respect to Data Requests 1, 2, 3, 5, 7, and 8.

NHSC renews its Motion to Compel with respect to Data Requests 4, 6, 9, 10, 11 and 13 [repeated below] for the reasons set forth.

MEMORANDUM

1. The operating, maintenance and capital costs for pollution control equipment at the 50 year old, coal fired power plant Merrimack Station are significant. It is critically important that maintenance and needed capital investment in the equipment not be deferred. Deferred maintenance means higher rate payer costs in the future. It is critically important that the equipment be fully compliant with the Clean Air Act and the New Hampshire Multipollutant Control Program. Avoidance of permitting and compliance responsibilities likely means very substantial rate payer costs, including potential fines and penalties in the future.

NO<sub>x</sub>, the subject of Data Request 4, is a particularly demanding problem for PSNH. NO<sub>x</sub> is a component of ozone. A large part of southern New Hampshire is in non-attainment for ozone which means that the control of NO<sub>x</sub> emissions must meet more stringent control standards. MK 2 is a BART eligible EGU under the Regional Haze

SIP which means that emissions must meet a more stringent standard. [See footnote 1] MK2 is a wet bottom cyclone boiler, built in 1968, with very high uncontrolled NO<sub>x</sub> emission rates due, in large part, to the very high heat release for the boiler and very high full load furnace exit gas temperature. The MK2 NO<sub>x</sub> uncontrolled emission rate is a much higher rate than most uncontrolled boilers and is higher than most cyclones. Andover Technology Partners, Case Studies, April 23, 1998. NHSC Exhibit B-11, ARC 09-10.

Prudence demands that the costs for NO<sub>x</sub> control be part of the reconciliation process. Therefore, Data Request 4 asks that those costs be identified and that the costs be budgeted 5, 10 and 40 years out. NHSC also asks that there be discrete line items for NO<sub>x</sub> pollution control costs.

Data Request 4 follows:

A review of Attachment RAB-3, appended to the Baumann testimony, does not provide any detail regarding the costs for emission control equipment at Merrimack Station, including the costs of the MK1 and MK2 selective catalytic recovery systems [SCR] for the reduction of nitrogen oxides [NO<sub>x</sub>]. Please provide the 2009 operating and maintenance costs [O&M] and capital costs for NO<sub>x</sub> compliance for each MK1 and MK2. Please specifically detail the basis of the costs. What O&M and capital costs are budgeted for the next 5 years? The next 10 years? The next 40 years? Please provide the data that supports these budget projections. Does PSNH anticipate future, more stringent, NO<sub>x</sub> compliance costs because of state and federal regulation, including, but not limited to, the New Hampshire Regional Haze SIP as may be approved by the Environmental Protection Agency?<sup>1</sup> Has PSNH budgeted for these anticipated costs? If not, why not?

2. Data Request 6 regarding pollution control costs for PM requires the same treatment that NHSC requests for NO<sub>x</sub>. Prudence demands that the operational, maintenance and capital costs be identified in the reconciliation process and be properly budgeted 5, 10 and 40 years out.

Data Request 6 follows:

A review of Attachment RAB-3, appended to the Baumann testimony, does not provide any detail regarding the costs for emission control equipment at Merrimack Station, including the costs of the MK1 and MK2 electrostatic precipitator systems [ESP] for the reduction of particulate matter [PM]. Please provide the 2009 operating and maintenance costs [O&M] and capital costs for PM for each MK1 and MK2. Please specifically detail the basis of the costs. What O&M and capital costs are

---

<sup>1</sup> MK2 is a BART eligible Targeted EGU in the NH Regional Haze SIP.

budgeted for PM the next 5 years? The next 10 years? The next 40 years? Please provide the data that supports these budget projections. Does PSNH anticipate future, more stringent, PM compliance costs because of state and federal regulation, including, but not limited to, the New Hampshire Regional Haze SIP as may, in the future, be approved by the Environmental Protection Agency? Has PSNH budgeted for these anticipated costs? If not, why not?

3. In his March 15, 2010, testimony before the Air Resources Council in ARC 09-10, William H. Smagula, Director-Generation, PSNH, stated that he personally made the decision to abandon the testing and experimentation with activated carbon injection [ACI] to reduce the emissions of the hazardous air pollutant Hg because of difficulties with the process and the lack of real emission reductions. PSNH, in its responses to this NHSC Data Request, with less than candor, suggests that the testing continued at least through the “first part of 2009”. NHSC has concerns that the scrubber will not control mercury emissions to the level compliant with RSA 125-O and MACT under the Clean Air Act.

Prudence demands that PSNH fully disclose the costs associated with Hg control in the 2009 reconciliation process and be properly budgeted 5, 10 and 40 years out.

Data Request 9 follows:

PSNH has abandoned its testing and experimentation with activated carbon injection [ACI] to reduce the emissions of the hazardous air pollutant mercury [Hg] at Merrimack Station.<sup>2</sup> A review of Attachment RAB-3, appended to the Baumann testimony, does not provide any detail regarding the costs for Hg emission control equipment at Merrimack Station. Please provide the 2009 operating and maintenance costs [O&M] and capital costs for Hg for each MK1 and MK2. Please specifically detail the basis of the costs. What O&M and capital costs are budgeted for the next 5 years? The next 10 years? The next 40 years? Please provide the data that supports these budget projections. Does PSNH anticipate future, more stringent, Hg compliance costs because of state and federal regulation, including compliance with RSA 125-O 11-18 and the maximum achievable control technology [MACT] required by the Clean Air Act? Has PSNH budgeted for these anticipated costs? If not, why not?

4. Data Request 10 is the necessary follow up to Data Request 9. RSA 125-O requires that there be a Hg baseline on the input side to determine the 80% Hg emission removal. A proper baseline will require a strict pre-combustion coal specification. Prudence demands that the cost of coal be fully disclosed and that expected costs be properly budgeted 5, 10 and 40 years out.

---

<sup>2</sup> ACI was expected to be a significantly less expensive mercury reduction system. The program was apparently abandoned because the MK2 SCR catalyst promotes the conversion of SO<sub>2</sub> to SO<sub>3</sub>. SO<sub>3</sub> limits the effectiveness of ACI.

Data Request 10 follows:

RSA 125-O:14 contains prescriptive language specific to determining baseline Hg input based on the sum of annual input pound averages derived from average mercury content of monthly samples of the coal combusted traditionally and average annual coal throughput for certain baseline years. Merrimack 1 has traditionally used a 2/1/1 blend of 50% high sulfur, 25% Bailey [mid-sulfur], and, 25% South American [low sulfur]. MK2 has traditionally used 100% Bailey [mid-sulfur]. Schiller uses 100% South American [low sulfur]. The total Hg baseline input, including Schiller, is 326 pounds per year.<sup>3</sup> Should Merrimack Station not be able to achieve the 80% Hg reduction required by RSA 125-O: 1-18, what coal blend will PSNH be required to use to reduce Hg on the input side? Will a changed coal blend increase fuel costs? By how much? Has PSNH made budget calculations for increased fuel costs? If not, why not?

5. The need to examine the information requested by Data Request 11 is evident.

Data Request 11 follows:

RSA 125-O: 11-18 requires that SO<sub>2</sub> emissions be reduced 90%. Referring to Data Request 10 above regarding the coal blends traditionally used at Merrimack Station, if the SO<sub>2</sub> removal rate is not achieved by the FGD system or if a state or federal regulation or program requires a higher removal rate and a lower sulfur coal blend, will the change increase fuel costs? By how much? Has PSNH made budget calculations for increased fuel costs? If not, why not?

6. The prudence review mandated by RSA 369-B: 3, IV[b] [1] [A] demands an examination of not only the actual reconciliation year costs, but also an examination of the certainty of future costs. Prudence demands avoidance of future costs that follow ill-advised reconciliation year decisions such as deferred maintenance on critical pollution control equipment or the avoidance of environmental compliance responsibilities. Future year cost surprises, caused by poor decisions and limited prudence examination, may not be supported by allowed rates. Expenses may escalate beyond rate support; therefore, the prudence of pollution control cost decisions must be carefully examined.

In DE 10-122, the Commission has pending, with an accelerated, almost summary schedule, a \$600,000,000 long term financing request in which PSNH requests authority to issue debt with maturities of up to 40 years. That docket will require a determination of the public good in accordance with the principles set forth in Appeal of Easton, 125 N.H. 205 [1984]. NHSC is mindful that prudence proceedings and Easton proceedings are separate, but, each proceeding has direct bearing on the other.

---

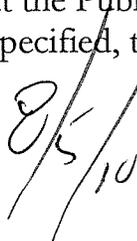
<sup>3</sup> PSNH and NHDES-ARD have not yet reached agreement on the Hg baseline.

Poor reconciliation year decisions, including 2009, followed by inadequate prudence review in this and following reconciliation dockets will, with certainty, lead to a poor Easton review. Data Request 13 addresses the overriding issue that lies at the heart of the interplay between the annual reconciliation process and the pending Easton review. Merrimack Station is an old, dirty, coal fired power plant, a huge source of pollutants. The costs to control these pollutants are going to escalate. The Commission should order a comprehensive response to Data Request 13.

Data Request 13 follows:

Please provide an explanation of how the continuing payment of substantial O&M and capital costs for this 50 year old coal fired power plant for environmental compliance, as detailed in response to Data Requests 1-10 above, financed by first mortgage bonds with up to a 40 year maturity, is in the public good. Docket DE 10-122. See RSA 369:1 Coal fired power plants have substantial environmental consequences as compared to other, cleaner sources of generation, therefore, please specifically address the environmental costs of Merrimack Station in your discussion of PSNH compliance with RSA 369:1 and the public good.

Wherefore, NHSC respectfully moves that the Public Utilities Commission order PSNH to fully respond to the Data Requests as specified, together with whatever other relief proper in the premises.



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

No.18301

#### Certificate of Service

Petitioner served notice of the filing of this Reply pursuant to Puc 203.17.

