

**Public Service
of New Hampshire**

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The Northeast Utilities System

Gary A. Long
President and Chief Operating Officer

September 2, 2008

Ms. Debra A. Howland
Executive Director and Secretary
New Hampshire Public Utilities Commission
21 Fruit Street
Concord, New Hampshire 03301

**Re: *Docket No. DE 08-103
Public Service Company of New Hampshire
Merrimack Station Scrubber Project
Request for Information***



Dear Secretary Howland:

Pursuant to the Commission's Secretarial Letter, dated August 22, 2008, Public Service Company of New Hampshire ("PSNH" or the "Company") provides this response to the Request for Information regarding the legislatively mandated installation of wet flue gas desulphurization technology ("scrubber" technology) at Merrimack Station, to be installed as soon as possible but in no case later than July 2013. We have enclosed an original and six copies of PSNH's response.

This filing demonstrates that following the installation of the scrubber, Merrimack Station will continue to be a vital base-load source for reliable and affordable power in the State of New Hampshire, and will have the added benefit of being among the cleanest coal-burning plants in the nation. PSNH is confident that up to the initiation of this inquiry, it was diligently pursuing and complying with the legal mandates contained in 2006 N.H. Laws, Chapter 105, the mercury emissions reduction law ("Scrubber Law"), by moving forward rapidly with the installation of scrubber technology at Merrimack Station.

As required by the Commission's Request for Information, PSNH is providing a memorandum of law, project status report, and response to specific economic inquiries. This information will serve to support the legislature's finding that the installation of the scrubber at Merrimack Station ("the scrubber project" or "Clean Air Project") is "in the public interest of the citizens of New Hampshire and the customers of the affected sources." RSA 125-O:11, VI. The legislature, in reaching its conclusion that the scrubber installation is in the public interest, did

not limit itself to economic considerations, but rather performed a careful balancing of the costs and the ensuing benefits to the public health, welfare, economy, and environment (including improved air quality and the protection of natural resources)—benefits which contribute to sustaining the vibrancy of the State and its citizens as a whole. As part of its inquiry, the Commission must review and comply with the General Court’s Statement of Purpose and Findings (RSA 125-O:11) as well as the larger statutory context as delineated in the Findings and Purpose of the Multiple Pollutant Reduction Program (RSA 125-O:1)(“the Clean Power Act”) in which these societal prerogatives are prioritized.

PSNH has a long history of collaboration with state policymakers and the resolution of difficult and challenging environmental issues. We are proud of our consistently proactive environmental stewardship which includes: installation of the first-in-the-nation utility-owned selective catalytic reduction system at Merrimack Station Unit 2 in 1995 and Unit 1 in 1999 to capture NOx emissions; the successful, internationally lauded conversion of a fossil-fuel unit (Schiller Unit 5) in our fleet to a wood-burning facility; our vigorous collaboration on, and crafting of, the first-in-the-nation groundbreaking four-pollutant bill, the Clean Power Act, RSA Chapter 125-O; and now, the aggressive installation of a scrubber system at Merrimack Station to significantly reduce mercury and sulfur dioxide emissions in compliance with the Scrubber Law. At its core, the Scrubber Law is an environmentally motivated law which will result in improvements to air quality. With the Clean Air Project, PSNH will capture, at a minimum, 80% of the mercury entering its coal-fired power boilers which otherwise could be released to the atmosphere. Additionally, the scrubber technology will remove more than 30,000 tons of SO2 emissions each year. These significant environmental benefits were viewed by the legislature as critical goals, in the public interest, to be accomplished on an accelerated basis.

The Scrubber Law is itself another example of PSNH’s willingness to work with state policymakers in resolving critical issues. It is the product of a lengthy collaborative effort that PSNH spearheaded along with the Governor’s Office, the Office of Energy and Planning, the Department of Environmental Services, and a number of legislators and environmental groups. (See the legislative history included in PSNH’s Memorandum of Law.) The legislature, recognizing that the Scrubber Law represented the delicate balancing of numerous interests, found the law in its entirety to be in the public interest, as it has plainly and clearly stated within the law itself, and, in fact, further determined to protect the integrity of the statutory language with a finding emphasizing the non-severability of the law’s provisions. (RSA 125-O:11, VIII: “The mercury reduction requirements set forth in this subdivision represent a careful, thoughtful balancing of cost, benefits, and technological feasibility and therefore the requirements shall be viewed as an integrated strategy of non-severable components.”)

The Clean Air Project is a vast and complex engineering and craft labor challenge that is in progress and will take another four years to complete. At its peak, and in addition to the engineering and management support services, the project will require the efforts of more than 300 union craft workers. PSNH has reached a written accord with organized labor leadership to utilize union labor on this project to ensure the availability of critical skilled craft workers and to prioritize work safety on the job. In a recessionary national economy, the importance of this

project to craft labor in terms of steady in-state employment cannot be over-emphasized—one more example of an important public interest.

Because of its size and complexity, the Clean Air Project must be an extremely well managed, carefully orchestrated project, and must firmly adhere to critical milestones established in the overarching project schedule which will control the work of numerous contractors and subcontractors. PSNH has already completed a number of critical milestones to ensure project success, as further detailed in this filing.

At this juncture, PSNH has diligently gone through competitive bidding processes for each major “island” of work and has proceeded to negotiate fixed-price contracts with selected vendors. The contracts for the scrubber itself and for the new chimney stand ready to be finalized and executed; the contract for the waste-water treatment facility and site preparation are in final negotiations. Any delay in issuing these contracts will be a major setback for this project and will result in additional costs to our customers. Contractors and their subcontractors are only willing to hold fixed prices for an abbreviated period of time given the rapid escalation of the prices of raw materials and their need to lock in shop time well in advance for the manufacturing of components. If any one of PSNH’s major contractors is unwilling to hold prices or contractual terms or to extend the deadline for execution of contracts, the scrubber project schedule has the potential to be irreparably disrupted and harmed. This is because the nature of the scrubber project and the site layout require the sequential completion of many of the construction islands (for example, consider the new chimney: the foundation work must be done in non-winter months, followed by the construction of the chimney “shell” which must be completed in order for the area surrounding the chimney or “drop zone” to be released before other work can proceed for obvious safety reasons). As a result, this means that even a short delay now will have a domino effect and a greater than day-for-day impact on the entire project with the likely result of significant additional costs to the project.

We are mindful of the legislature’s mandate that the scrubber project proceed on an accelerated basis and refer the Commission, once again, to the Statement of Purpose and Findings, as well as the legislative history (see PSNH’s Memorandum of Law). Any delay in this project will result in added costs, while, conversely, an accelerated schedule will save money. Shaving six months to a year off the project timeline saves significantly on AFUDC costs, avoids escalation in costs of materials and labor, and will result in early compliance credits for PSNH’s customers (Economic Performance Incentives, RSA 125-O:16). We respectfully ask the Commission’s assistance in complying with the law by expediting the resolution of this inquiry.

It should surprise no one that the costs of this project have increased significantly over the original preliminary estimates made in late 2004-2005. On May 15, 2008, the *Wall Street Journal* reported on the escalation in prices of commodities due to unrelenting global demand--steel prices, just five months into the new year, were already up 40-50% for the year; coking coal and scrap steel, key ingredients in steelmaking, had soared 100%; along with a 71% increase in iron ore prices--all of which are “part of a broader surge in raw-materials prices amid tight supplies and soaring global demand, fueled in part by the rapid industrialization of India, China and other developing nations.” However, the cost increases involved in a plant modification are

dwarfed by the costs of constructing a new plant which have more than doubled in recent years. According to the Cambridge Energy Research Associates, “the construction of new generating capacity that would have cost \$1 billion in 2000 would cost \$2.31 billion if construction began today” with most of that increase occurring since 2005. (*Wall Street Journal*, May 27, 2008.) PSNH would like to emphasize: time is money in this market.

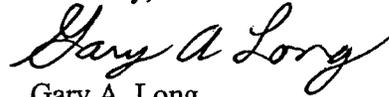
Merrimack Station’s continued operation ensures that New England has continued fuel diversity and energy security. The New England region is already highly reliant on natural gas, and subject to its high price volatility and the vagaries of the natural gas market, as a fuel source for the power generation sector. Even so, there is very limited activity, and to this point in time, very unsuccessful efforts, to add new base-load power generation to the New England grid. As the economy remains difficult, and credit markets tight, the ability to site, permit, finance, and construct new base-load generation has become nearly impossible. Preservation of the key existing base-load generation resources like Merrimack Station, while maintaining its positive economics for customers, is critical to the region’s future. This is particularly true in the case of Merrimack Station which provides not only low-cost energy but has a remarkable record of reliability characterized by record-breaking periods of lengthy continuous operation (in 2004, Merrimack Unit 1 and Merrimack Unit 2 both outperformed previous station operation records—Merrimack Unit 1 ran continuously 122 days and Merrimack Unit 2 ran 147 days). In addition, in 2007, Merrimack Station produced more energy than it ever has in its decades of operation. Clearly, the Station is functioning extremely well, as a direct result of strategic equipment repairs and replacements, well executed maintenance work, well performed operations activities, a dedicated workforce, and a strong and experienced management team.

Beyond the benefits PSNH's operation of Merrimack Station provides to customers in terms of lower electric energy prices and reliability to the New England electric grid, it should be recognized that the operation of Merrimack Station is a significant contributor to the local and state economy—another fact supporting the legislature’s public interest finding. Merrimack Station employs approximately 100 highly skilled and dedicated employees in what has become an increasingly limited "manufacturing" sector of our state's economy. In addition, there is significant company support staff for the Station. During annual outages and construction projects, the number of jobs provided increases substantially. PSNH, through its operation of Merrimack Station, contributes annually \$758,000 in state utility/property taxes and \$2.7 million in local property taxes. This in-state support to the economy reaches beyond wages and tax benefits and extends to the large quantity of materials and supplies and services for which PSNH contracts to operate and maintain the facility on an annual basis.

PSNH has met every environmental challenge head on and met or exceeded expectations in achieving environmental benefits, all of which have been in the public interest. Today, the challenge is mercury—a challenge we are striving to meet. With the installation of a scrubber at Merrimack Station, PSNH will maintain and enhance its standing as the lowest emitting coal-fired power generator in the region. We are excited about this project and the positive impact it will have on our environment. We remain confident that this can be achieved while continuing to provide economic, reliable base-load power for our customers over the period of the scrubber's operation.

PSNH urges the Commission to act expeditiously to resolve this inquiry so that PSNH may resume the commitment of capital and manpower necessary to install the scrubber technology at its Merrimack Station as mandated by law. PSNH stands ready and willing to keep the Commission up to date on the status and progress of the Clean Air Project once we are able to proceed in accordance with the law.

Sincerely,

A handwritten signature in cursive script that reads "Gary A. Long".

Gary A. Long

President and Chief Operating Officer