

STATE OF NEW HAMPSHIRE
SUPREME COURT

2008-

APPEAL OF STONYFIELD FARM, INC., H & L INSTRUMENTS, LLC, AND GREAT
AMERICAN DINING, INC. UNDER RSA 541:6 AND RSA 365:21 FROM ORDER OF
PUBLIC UTILITIES COMMISSION

APPENDIX TO APPEAL OF STONYFIELD FARM, INC., H & L INSTRUMENTS,
LLC, AND GREAT AMERICAN DINING, INC.
Appellants

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December 11, 2008

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7. Voting rights

Statute, which permits only residents to vote in village district elections, did not deprive nonresident landowners of right to vote in violation of state constitutional provision, even though 90% of property owners in area were not residents. *Chasan v. Village Dist. of Eastman* (1986) 128 N.H. 807, 523 A.2d 16.

8. Violation of election laws

Statute which permits any citizen to file a complaint stating that his name is illegally kept from checklist and statute which provides ballot-law commission with jurisdiction over questions concerning validity of nomination for public office did not adequately protect rights of candidate for public office so as to preclude him from maintaining action for declaratory relief to determine whether his conviction for an illegal contribution established proof of a wilful violation of election laws within constitutional provision that no person shall be eligible to office who shall have been convicted of any wilful violation of election laws. *Beaudoin v. State* (1973) 113 N.H. 559, 311 A.2d 310.

Petition by candidate for public office for declaratory relief to determine whether his conviction for a contribution to a political candidate without candidate's knowledge and written consent established proof of a wilful violation of election laws within constitutional provision that no person shall have right to be eligible to office who shall have been convicted of any wilful violation of election laws was proper. *Beaudoin v. State* (1973) 113 N.H. 559, 311 A.2d 310.

Consistently with this article, a candidate for office cannot be disqualified because of noncompliance with the statutory

requirement that a statement of contributions and expenditures be filed, unless such noncompliance was wilful. *State v. Sullivan* (1958) 101 N.H. 429, 146 A.2d 1.

Where an honest and reasonable effort has been made to comply with the provisions of a statute requiring the reporting of campaign expenses, any mistake made with respect thereto cannot be classed as a wilful violation of the election laws of the state. *Daniell v. Gregg* (1952) 97 N.H. 452, 91 A.2d 461.

9. Technical irregularities

The doctrine of substantial compliance is used to effectuate the long-standing rule that statutes regulating the form of ballots or votes should not be applied to disenfranchise voters because of technical irregularities. *Kibbe v. Town of Milton* (1997) 142 N.H. 288, 700 A.2d 1224.

10. Municipal authority

Statutory law and State Constitution preempted town's charter provision imposing term limits on locally elected officials, where State had created a comprehensive statutory scheme governing the field of elections, including qualifications for office, and had neither expressly nor impliedly granted towns authority to impose term limits. *Town of Hooksett v. Baines* (2002) 148 N.H. 625, 813 A.2d 474.

11. Judicial authority

Legislature's failure to enact a new district plan for the state senate following the 2000 census required the Supreme Court to redraw the districts to correct violation of equal protection and equal voting rights. *Below v. Gardner* (2002) ___ N.H. ___, ___ A.2d ___, 2002 WL 1369821.

[Art.] 12th. [Protection and Taxation Reciprocal.] Every member of the community has a right to be protected by it, in the enjoyment of his life, liberty, and property; he is therefore bound to contribute his share in the expense of such protection, and to yield his personal service when necessary. But no part of a man's property shall be taken from him, or applied to public uses, without his own consent, or that of the representative body of the people. Nor are the inhabitants of this state controllable by any other laws than those to which they, or their representative body, have given their consent.

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TITLE X PUBLIC HEALTH

CHAPTER 125-O MULTIPLE POLLUTANT REDUCTION PROGRAM

Section 125-O:1

125-O:1 Findings and Purpose. –

I. The general court finds that while air quality has improved in recent years, scientific advances have demonstrated that adequate protection of public health, environmental quality, and economic well-being - the 3 cornerstones of New Hampshire's quality of life - requires additional, concerted reductions in air pollutant emissions. The general court also finds that the state's tradition of environmental leadership - setting an example for similarly feasible air pollution reductions from upwind jurisdictions - is also well served by additional emission reductions.

II. Recent studies and scientific evidence, documented in the New Hampshire Clean Power Strategy issued in January 2001 by the department of environmental services, indicates that significant negative human health and ecosystem impacts continue to be caused by air pollution. The general court finds that the substantial quantities of several harmful air pollutants that continue to be emitted from existing fossil fuel burning steam electric power plants, despite recent reductions in the emission of certain air pollutants from some of these facilities, contribute to these harmful impacts and that additional emissions reductions from these sources are warranted.

III. Specifically, the general court finds that aggressive further reductions in emissions of sulfur dioxide (SO₂), oxides of nitrogen (NO_x), mercury, and carbon dioxide (CO₂) must be pursued. These pollutants are primarily responsible for the human health and ecosystem impacts documented in the New Hampshire Clean Power Strategy issued in January 2001 by the department of environmental services.

IV. The general court finds that, as demonstrated by recent analyses, a high quality-of-life environment has been, and will continue to be, essential to New Hampshire's economic well-being. The general court further finds that protecting New Hampshire's high quality-of-life environment by reducing air pollutant emissions returns substantial economic benefit to the state through avoided health care costs; greater tourism resulting from healthier lakes and improved vistas; more visits by fishermen, hunters, and wildlife viewers to wildlife ecosystems, and a more productive forest and agricultural sector.

V. For the above reasons and others, the general court finds that substantial additional reductions in emissions of SO₂, NO_x, mercury, and CO₂ must be required of New Hampshire's existing fossil fuel burning steam electric power plants. Due to the collateral benefits and economies of scale associated with reducing multiple pollutant emissions at the same time, the general court finds that such aggressive emission reductions are both feasible and cost-effective if implemented simultaneously through a comprehensive, integrated power plant strategy.

VI. The general court also finds that the environmental benefits of air pollutant reductions can be most cost-effectively achieved if implemented in a fashion that allows for regulatory and compliance flexibility under a strictly limited overall emissions cap. Specifically, market-based approaches, such as trading and banking of emission reductions within a cap-and-trade system, allow sources to choose the most cost-effective ways to comply with established emission reduction requirements. This approach also provides sources with an incentive to reduce air pollutant emissions sooner and by greater amounts, promotes the development and use of innovative new emission control technologies, and specifies to the greatest extent possible performance results regarding environmental improvement rather than dictating expensive, facility-specific, command-and-control regulatory requirements. The general court acknowledges that future federal regulations may mandate some facility-specific requirements regarding mercury reductions.

VII. The general court also finds that energy conservation results in direct reductions in air pollutant emissions. Thus, incentives for energy conservation are an important component of an overall clean power strategy. The general court recognizes that energy conservation expenditures made by utilities using system benefits charge

funds can benefit all citizens and ratepayers.

Source. 2002, 130:2, eff. July 1, 2002.

Section 125-O:2

125-O:2 Definitions. – In this chapter:

I. "Affected sources" means existing fossil fuel burning steam electric power plant units in this state, specifically Merrimack Units 1 and 2 in Bow; Schiller Units 4, 5, and 6 in Portsmouth; and Newington Unit 1 in Newington, excluding any of these units that may be repowered.

II. "Allowance" means a limited authorization to emit one ton of SO₂, one ton of NO_x, one pound of mercury, or one ton of CO₂ during a specified year.

III. "Commissioner" means the commissioner of the department of environmental services.

IV. "Department" means the department of environmental services.

V. "Discrete emission reduction" or "DER" means an emission reduction generated over a discrete period of time, and measured in weight (e.g., tons).

VI. "Ozone transport region" means the ozone transport region as established by section 184(a) of the Clean Air Act, 42 U.S.C. section 7511c.

VII. "Person" means any individual, partnership, firm or co-partnership, association, company, trust, corporation, department, bureau, agency, private or municipal corporation, or any political subdivision of the state, the United States or political subdivisions or agencies thereof, or any other entity recognized by law as subject to rights and duties.

VIII. "Renewable energy" means energy derived from hydro, geothermal, wind, solar thermal, photovoltaic, biomass, methane waste, tidal, or other source approved by the department.

IX. "Repowered unit" means an affected source that has installed qualifying repowering technology as defined by 40 C.F.R. part 72, or has replaced a unit by a new unit, provided the new replacement unit:

(a) Is on the same or contiguous property as the replaced unit, regardless of owner;

(b) Has a maximum power output rate equal to or greater than the maximum power output rate of the replaced unit; and

(c) Is designed to control, or is equipped with best available technology to control, emissions of multiple pollutants simultaneously, and in conformity with the emissions rates and reductions used to establish RSA 125-O:3.

X. "System benefits charge funds" or "SBC funds" means revenues collected by Public Service Company of New Hampshire (PSNH) (currently at a rate of 1.8 mills (\$0.0018) per retail kilowatt-hour sold as set by the general court in 2001, 29:14) to fund energy efficiency and conservation and load management programs approved by the public utilities commission.

Source. 2002, 130:2, eff. July 1, 2002.

Section 125-O:3

125-O:3 Integrated Power Plant Strategy. –

I. The department shall implement an integrated, multi-pollutant strategy to reduce air emissions from affected sources.

II. The integrated, multi-pollutant strategy shall be implemented in a market-based fashion that allows trading and banking of emission reductions to comply with the overall statewide annual emission caps established under RSA 125-O:3, III. Allowances, up to the amount of these caps, shall be allocated to each affected source based on the output of each affected source. The department shall make publicly available all allocations prior to the effective date of such allocations.

III. The strategy shall include implementation of the following statewide annual emissions caps:

(a) 7,289 tons annually applicable to total sulfur dioxide (SO₂) emissions from the affected sources;

(b) 3,644 tons annually applicable to total oxides of nitrogen (NO_x) emissions from the affected sources;

(c) [Repealed.]

(d) 5,425,866 tons annually applicable to total carbon dioxide (CO₂) emissions from the affected sources until December 31, 2008.

Source. 2002, 130:2, eff. July 1, 2002. 2006, 105:2, I, eff. June 8, 2006. 2008, 182:3, eff. June 11, 2008.

Section 125-O:4

125-O:4 Compliance. –

I. The owner or operator of each affected source shall file a compliance plan with the department describing the technologies, operational modifications, market-based approaches, or other methods that will be used to comply with the emission caps established under RSA 125-O:3, III. Compliance plans shall also include a report of the mercury content analysis program results required under RSA 125-O:4, II and a report of the stack testing results for mercury emissions from Merrimack Units 1 and 2 and either Schiller Unit 4, 5, or 6 required under RSA 125-O:4, III. An initial compliance plan shall be filed no later than one year after the effective date of this section. Amended compliance plans shall be submitted to the department 45 days prior to the implementation of any change to the plan.

II. The owner or operator of each affected source burning coal as fuel shall conduct a mercury content analysis program. This program shall consist of monthly fuel samples and analyses for at least 12 consecutive months and the submittal of a final report to the department no later than one year after the effective date of this section.

III. Stack testing for mercury emissions from Merrimack Units 1 and 2 and either Schiller Unit 4, 5, or 6 shall be completed using a department approved test method no later than one year after the effective date of this section. The owner or operator shall submit a test protocol to the department at least 45 days prior to the commencement of stack testing.

IV. Compliance with the emission caps established under RSA 125-O:3, III may be demonstrated by making emission reductions at the affected sources, using compliance market-based approaches, or other methods acceptable to the department.

(a) (1) Affected sources may use SO₂ allowances from federal or regional trading and banking programs and incentive programs established under this chapter to comply with the SO₂ emission cap established under RSA 125-O:3, III. In addition, allowances or credits from other programs may be acceptable as determined by the department.

(2) Affected sources shall transfer to the department all annual allocations provided under the federal acid rain program. Affected sources shall receive from the department SO₂ allowances equivalent to the cap established in RSA 125-O:3, III. Additionally, in order to promote local reductions, for each year after the compliance date that combined SO₂ emissions from affected sources are below the annual average emissions for the previous 3 years, affected sources shall receive additional SO₂ allowances in a combined amount equal to the difference between the current year emissions and the average annual emissions for the previous 3 years.

(3) Further, in order to encourage reductions in upwind emissions and thereby provide greater benefit to air quality in New Hampshire, for each 0.80 allowance purchased by an affected source under the federal acid rain program and utilized for compliance with the provisions of this chapter which originates from within the ozone transport region, the affected source shall receive an additional 0.20 allowance from the department.

(4) The combined sum of all allowances received by the affected sources under subparagraphs (a)(2) and (a)(3) shall not exceed 20,000 in any given year, and shall be credited to the affected sources' accounts in the year following each annual compliance period.

(b) Affected sources may use NO_x allowances from federal or regional trading and banking programs, or other programs acceptable to the department, and NO_x discrete emissions reductions by affected sources other than Merrimack Units 1 and 2 from state trading and banking programs, to comply with the NO_x emission cap established under RSA 125-O:3, III. NO_x discrete emissions reductions may only be used to comply with that portion of the NO_x emission cap established under RSA 125-O:3, III which does not apply to emissions between May 1 and September 30 of any calendar year.

(c) Affected sources may use CO₂ allowances from federal or regional trading and banking programs, or

other programs acceptable to the department, to comply with the CO₂ emission cap established under RSA 125-O:3, III. Early reductions of CO₂ may be banked for future use in regional or national trading programs or to meet the emission caps established under RSA 125-O:3, III.

(d) [Repealed.]

V. The owner or operator of each affected source shall be allowed to recover all prudent costs associated with compliance in a manner consistent with RSA 374-F, RSA 369-B, and the Agreement to Settle PSNH Restructuring, dated August 2, 1999, Revised and Conformed in Compliance with NHPUC Order No. 23,549.

Source. 2002, 130:2, eff. July 1, 2002. 2006, 105:2, II, eff. June 8, 2006.

Section 125-O:5

125-O:5 Energy Efficiency, Renewable Energy, and Conservation and Load Management Incentive. –

I. In order to encourage energy efficiency, energy conservation, renewable energy, and the reductions in local emissions which result, the integrated multi-pollutant strategy shall promote energy efficiency and conservation through conservation and load management programs.

II. Public Service Company of New Hampshire (PSNH) may utilize SBC funds equivalent to the unencumbered amount, if any, rolled over from the prior program year for energy efficiency projects at facilities owned and operated by PSNH, provided that the company made a good faith effort in the prior program year to meet the goals approved by the public utilities commission for its core energy efficiency programs, and provided that the SBC funds used by PSNH shall not exceed 2 percent of all SBC funds collected in the prior program year. PSNH may utilize these funds to implement approved core energy efficiency initiatives or measures at PSNH's facilities that are cost effective and which enhance the efficient use of energy at PSNH facilities. Any energy savings resulting from the use of these funds by PSNH at its facilities will not be included in the calculation of PSNH's energy efficiency program goals, any shareholder incentive, or any other incentive program. In any year that PSNH utilizes SBC funds, PSNH shall submit a report to the public utilities commission and the department detailing how these funds were utilized, and will make the report available to interested parties. Any party may request that the public utilities commission schedule a hearing to review these reports and the expenditure by PSNH of rolled over SBC funds at its facilities.

III. [Repealed.]

Source. 2002, 130:2, eff. July 1, 2002. 2008, 182:10, eff. June 11, 2008.

Section 125-O:5-a

125-O:5-a Energy Efficiency and Sustainable Energy Board. –

I. An energy efficiency and sustainable energy board is hereby created to promote and coordinate energy efficiency, demand response, and sustainable energy programs in the state. The board's duties shall include but not be limited to:

(a) Review available energy efficiency, conservation, demand response, and sustainable energy programs and incentives and compile a report of such resources in New Hampshire.

(b) Develop a plan to achieve the state's energy efficiency potential for all fuels, including setting goals and targets for energy efficiency that are meaningful and achievable.

(c) Develop a plan for economic and environmental sustainability of the state's energy system including the development of high efficiency clean energy resources that are either renewable or have low net greenhouse gas emissions.

(d) Provide recommendations at least annually to the public utilities commission on the administration and allocation of energy efficiency and renewable energy funds under the commission's jurisdiction.

(e) Explore opportunities to coordinate programs targeted at saving more than one fuel resource, including conversion to renewable resources and coordination between natural gas and other programs which seek to reduce the overall use of nonrenewable fuels.

(f) Develop tools to enhance outreach and education programs to increase knowledge about energy efficiency

and sustainable energy among New Hampshire residents and businesses.

(g) Expand upon the state government's efficiency programs to ensure that the state is providing leadership on energy efficiency and sustainable energy including reduction of its energy use and fuel costs.

(h) Encourage municipalities and counties to increase investments in energy efficiency and sustainable energy through financing tools, and to create local energy committees.

(i) Work with community action agencies and the office of energy and planning to explore ways to ensure that all customers participating in programs for low-income customers and the Low Income Home Energy Assistance Program (LIHEAP) have access to energy efficiency improvements, and where appropriate, renewable energy resources, in order to reduce their energy bills.

(j) Investigate potential sources of funding for energy efficiency and sustainable energy development and delivery mechanisms for such programs, coordinate efforts between funding sources to reduce duplication and enhance collaboration, and review investment strategies to increase access to energy efficiency and renewable energy resources.

II. The members of the board shall be as follows:

(a) The chairman of the public utilities commission, or designee.

(b) The director of the office of energy and planning, or designee.

(c) The consumer advocate, or designee.

(d) The commissioner of the department of environmental services, or designee.

(e) The commissioner of the department of resources and economic development, or designee.

(f) The president of the Business and Industry Association of New Hampshire, or designee.

(g) The executive director of the New Hampshire Municipal Association, or designee.

(h) The executive director of New Hampshire Legal Assistance, or designee.

(i) The president of the Homebuilders & Remodelers Association of New Hampshire, or designee.

(j) Two members of the house science, technology and energy committee appointed by the speaker of the house of representatives.

(k) One member of the senate energy, environment and economic development committee, appointed by the president of the senate.

(l) Three representatives from not-for-profit groups representing energy, environmental, consumer, or public health issues and knowledgeable in energy conservation policies and programs, appointed by the chairman of the public utilities commission.

(m) The commissioner of the department of administrative services, or designee.

(n) The state fire marshal, or designee.

(o) The executive director of the New Hampshire housing finance authority, or designee.

III. The board shall include, as nonvoting participants, the following:

(a) One representative from each utility-administered electric and natural gas energy efficiency program appointed by the chairman of the public utilities commission.

(b) A representative of energy services companies delivering energy efficiency services to residential and business customers, appointed by the chairman of the public utilities commission.

(c) A representative of a business or association of businesses selling or installing sustainable or renewable energy systems, appointed by the chairman of the public utilities commission.

(d) A representative from the investment community with expertise in efficiency investments and financing, appointed by the chairman of the public utilities commission.

IV. The chairman of the public utilities commission shall call the first meeting of the board. The board shall elect a chairperson from among its members. Seven members of the board shall constitute a quorum. The board shall make an annual report on December 1 to the governor, the speaker of the house of representatives, the president of the senate, the house science, technology and energy committee, the senate energy, environment and economic development committee, and the public utilities commission, to provide an update on its activities and recommendations for action including possible legislation.

V. The board shall be administratively attached to the public utilities commission under RSA 21-G:10.

VI. Legislative members of the commission shall receive mileage at the legislative rate when attending to the duties of the board.

VII. No member of the board shall vote on a matter in which the member, his or her spouse or dependent, or the organization or entity represented by or employing the member, has a private interest which may directly or indirectly affect or influence the performance of his or her duties.

Source. 2008, 292:1, eff. Oct. 1, 2008.

Section 125-O:6

125-O:6 Powers and Duties of the Commissioner. – The commissioner may:

I. Develop a trading and banking program to provide appropriate compliance flexibility in meeting the emission caps established under RSA 125-O:3, III and allowance requirements of RSA 125-O:21 and RSA 125-O:22, and to encourage earlier and greater emissions reductions and the development of new emission control technologies in order to maximize the cost-effectiveness with which the environmental benefits of this chapter are achieved.

II. Propose to the general court for legislative enactment a program to reduce emissions that impair visibility in mandatory Class I Federal Areas, including the Great Gulf Wilderness Area and the Presidential-Dry River Wilderness, if evaluation and assessment of the program established under 125-O:6, I reveals after its implementation that further reductions of emissions that impair visibility are necessary. Any program proposed under this paragraph shall be at least as stringent as that specified in the Clean Air Act, amendments thereto, and regulations promulgated thereunder.

III. Propose to the general court for legislative enactment appropriate processes to encourage pollution prevention, energy efficiency, and other methods to cost-effectively achieve emissions reductions.

Source. 2002, 130:2, eff. July 1, 2002. 2008, 182:4, eff. June 11, 2008.

Section 125-O:7

125-O:7 Enforcement. –

I. Any violation of any provision of this chapter, or of any rule adopted under this chapter, shall be subject to enforcement by injunction, including mandatory injunction, issued by the superior court upon application of the attorney general. Any such violation shall also be subject to a civil forfeiture to the state of not more than \$25,000 for each violation, and for each day of a continuing violation.

II. Any person who knowingly violates any of the provisions of this chapter, or any rule adopted under this chapter, shall be guilty of a misdemeanor if a natural person, or guilty of a felony if any other person.

III. The commissioner, after notice and hearing pursuant to RSA 541-A, may impose an administrative fine not to exceed \$2,000 for each offense upon any person who violates any provision of this chapter or any rule adopted pursuant to this chapter. Rehearings and appeals from a decision of the commissioner under this paragraph shall be in accordance with RSA 541. Any administrative fine imposed under this paragraph shall not preclude the imposition of further penalties under this chapter. The proceeds of administrative fines imposed pursuant to this paragraph shall be deposited in the general fund.

(a) Notice and hearing prior to the imposition of an administrative fine shall be in accordance with RSA 541-A and procedural rules adopted by the commissioner pursuant to RSA 541-A:16.

(b) The commissioner shall determine fines based on the following:

(1) For a minor deviation from a requirement causing minor potential for harm, the fine shall be not less than \$100 and not more than \$1,000.

(2) For a minor deviation from a requirement causing moderate potential for harm, the fine shall be not less than \$601 and not more than \$1,250.

(3) For a minor deviation from a requirement causing major potential for harm, the fine shall be not less than \$851 and not more than \$1,500.

(4) For a moderate deviation from a requirement causing minor potential for harm, the fine shall be not less than \$601 and not more than \$1,250.

(5) For a moderate deviation from a requirement causing moderate potential for harm, the fine shall be not less than \$851 and not more than \$1,500.

(6) For a moderate deviation from a requirement causing major potential for harm, the fine shall be not less than \$1,251 and not more than \$1,750.

(7) For a major deviation from a requirement causing minor potential for harm, the fine shall be not less than \$851 and not more than \$1,500.

(8) For a major deviation from a requirement causing moderate potential for harm, the fine shall be not less than \$1,251 and not more than \$1,750.

(9) For a major deviation from a requirement causing major potential for harm, the fine shall be not less than \$1,501 and not more than \$2,000.

(c) The commissioner may assess additional fines for repeat violations.

Source. 2002, 130:2, eff. July 1, 2002.

Section 125-O:8

125-O:8 Rulemaking Authority. –

I. The commissioner shall adopt rules under RSA 541-A, commencing no later than 180 days after the effective date of this section, relative to:

(a) The establishment of trading and banking programs as authorized by RSA 125-O:6, I.

(b) The establishment of a method for allocating allowances and other emissions reduction units or mechanisms as authorized by RSA 125-O:3, II and III.

(c) Emissions and allowance monitoring, tracking, recordkeeping, reporting, and other such actions as may be necessary to verify compliance with this chapter.

(d) The method and requirements for auctioning budget allowances under RSA 125-O:21, which may use regional organizations.

(e) Defining eligible projects for early reduction allowances under RSA 125-O:21, IV, and establishing criteria to quantify and grant such allowances.

(f) Defining eligible projects for offset allowances under RSA 125-O:21, V, and establishing criteria to quantify and grant such allowances, including the accreditation of third-party verifiers.

(g) The forms and information required on applications for a temporary or operating permit required under RSA 125-O:22.

II. The public utilities commission shall adopt rules, under RSA 541-A, to administer the greenhouse gas emissions reduction fund pursuant to RSA 125-O:23.

Source. 2002, 130:2, eff. July 1, 2002. 2008, 182:5, eff. June 11, 2008.

Section 125-O:9

125-O:9 Compliance Dates. – The owner or operator of each affected source shall comply with the provisions of this chapter, excluding the subdivision on mercury emissions, RSA 125-O:11 through 125-O:18, and the subdivision for CO₂ emissions, RSA 125-O:19 through RSA 125-O:28, by December 31, 2006.

Source. 2002, 130:2, eff. July 1, 2002. 2006, 105:3, eff. June 8, 2006. 2008, 182:6, eff. June 11, 2008.

Section 125-O:10

125-O:10 Non-Severability. – No provision of RSA 125-O:1 through RSA 125-O:18 of this chapter shall be implemented in a manner inconsistent with the integrated, multi-pollutant strategy or RSA 125-O:1 through RSA 125-O:18 of this chapter, and to this end, the provisions of RSA 125-O:1 through RSA 125-O:18 of this chapter are not severable.

Source. 2002, 130:2, eff. July 1, 2002. 2008, 182:7, eff. June 11, 2008.

Mercury Emissions

Section 125-O:11

125-O:11 Statement of Purpose and Findings. – The general court finds that:

I. It is in the public interest to achieve significant reductions in mercury emissions at the coal-burning electric power plants in the state as soon as possible. The requirements of this subdivision will prevent, at a minimum, 80 percent of the aggregated mercury content of the coal burned at these plants from being emitted into the air by no later than the year 2013. To accomplish this objective, the best known commercially available technology shall be installed at Merrimack Station no later than July 1, 2013.

II. The department of environmental services has determined that the best known commercially available technology is a wet flue gas desulphurization system, hereafter "scrubber technology," as it best balances the procurement, installation, operation, and plant efficiency costs with the projected reductions in mercury and other pollutants from the flue gas streams of Merrimack Units 1 and 2. Scrubber technology achieves significant emissions reduction benefits, including but not limited to, cost effective reductions in sulfur dioxide, sulfur trioxide, small particulate matter, and improved visibility (regional haze).

III. After scrubber technology is installed at Merrimack Station, and after a period of operation has reliably established a consistent level of mercury removal at or greater than 80 percent, the department will ensure through monitoring that that level of mercury removal is sustained, consistent with the proven operational capability of the system at Merrimack Station.

IV. To ensure that an ongoing and steadfast effort is made to implement practicable technological or operational solutions to achieve significant mercury reductions prior to the construction and operation of the scrubber technology at Merrimack Station, the owner of the affected coal-burning sources shall work to bring about such early reductions and shall be provided incentives to do so.

V. The installation of scrubber technology will not only reduce mercury emissions significantly but will do so without jeopardizing electric reliability and with reasonable costs to consumers.

VI. The installation of such technology is in the public interest of the citizens of New Hampshire and the customers of the affected sources.

VII. Notwithstanding the provisions of RSA 125-O:1, VI, the purchase of mercury credits or allowances to comply with the mercury reduction requirements of this subdivision or the sale of mercury credits or allowances earned under this subdivision is not in the public interest.

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.

Source. 2006, 105:1, eff. June 8, 2006.

Section 125-O:12**125-O:12 Definitions.** – In this subdivision:

I. "Affected sources" means existing coal-burning power plant units in this state, specifically Merrimack Units 1 and 2 in Bow and Schiller Units 4, 5, and 6 in Portsmouth.

II. "Baseline mercury emissions" means the total annual mercury emissions from all of the affected sources, calculated in accordance with RSA 125-O:14, II.

III. "Baseline mercury input" means the total annual mercury input found in the coal used by all of the affected sources, calculated in accordance with RSA 125-O:14, I.

IV. "Owner" means the owner or owners of the affected sources.

V. "Scrubber technology" means a wet flue gas desulphurization system.

Source. 2006, 105:1, eff. June 8, 2006.

Section 125-O:13**125-O:13 Compliance.** –

I. The owner shall install and have operational scrubber technology to control mercury emissions at Merrimack Units 1 and 2 no later than July 1, 2013. The achievement of this requirement is contingent upon obtaining all necessary permits and approvals from federal, state, and local regulatory agencies and bodies; however, all such

regulatory agencies and bodies are encouraged to give due consideration to the general court's finding that the installation and operation of scrubber technology at Merrimack Station is in the public interest. The owner shall make appropriate initial filings with the department and the public utilities commission, if applicable, within one year of the effective date of this section, and with any other applicable regulatory agency or body in a timely manner.

II. Total mercury emissions from the affected sources shall be at least 80 percent less on an annual basis than the baseline mercury input, as defined in RSA 125-O:12, III, beginning on July 1, 2013.

III. Prior to July 1, 2013, the owner shall test and implement, as practicable, mercury reduction control technologies or methods to achieve early reductions in mercury emissions below the baseline mercury emissions. The owner shall report the results of any testing to the department and shall submit a plan for department approval before commencing implementation.

IV. If the net power output (as measured in megawatts) from Merrimack Station is reduced, due to the power consumption requirements or operational inefficiencies of the installed scrubber technology, the owner may invest in capital improvements at Merrimack Station that increase its net capability, within the requirements and regulations of programs enforceable by the state or federal government, or both.

V. Mercury reductions achieved through the operation of the scrubber technology greater than 80 percent shall be sustained insofar as the proven operational capability of the system, as installed, allows. The department, in consultation with the owner, shall determine the maximum sustainable rate of mercury emissions reductions and incorporate such rate as a condition of operational permits issued by the department for Merrimack Units 1 and 2. This requirement in no way affects the ability of the owner to earn over-compliance credits consistent with RSA 125-O:16, II.

VI. The purchase of mercury emissions allowances or credits from any established emissions allowance or credit program shall not be allowed for compliance with the mercury reduction requirements of this chapter.

VII. If the mercury reduction requirement of paragraph II is not achieved in any year after the July 1, 2013 implementation date, and after full operation of the scrubber technology, then the owner may utilize early emissions reduction credits or over-compliance credits, or both, to make up any shortfall, and thereby be in compliance.

VIII. If the mercury reduction requirement of paragraph II is not achieved by the owner in any year after the July 1, 2013 implementation date despite the owner's installation and full operation of scrubber technology, consistent with good operational practice, and the owner's exhaustion of any available early emissions reduction or over-compliance credits, then the owner shall be deemed in violation of this section unless it submits a plan to the department, within 30 days of such noncompliance, and subsequently obtains approval of that plan for achieving compliance within one year from the date of such noncompliance. The department may impose conditions for approval of such plan.

IX. The owner shall report by June 30, 2007 and annually thereafter, to the legislative oversight committee on electric utility restructuring, established under RSA 374-F:5, and the chairpersons of the house science, technology and energy committee and the senate energy and economic development committee, on the progress and status of complying with the requirements of paragraphs I and III, relative to achieving early reductions in mercury emissions and also installing and operating the scrubber technology including any updated cost information. The last report required shall be after the department has made a determination, under paragraph V, on the maximum sustainable rate of mercury emissions reductions by the scrubber technology.

Source. 2006, 105:1, eff. June 8, 2006.

Section 125-O:14

125-O:14 Measurement of Baseline Mercury Input and Emissions. –

I. Baseline mercury input shall be determined as follows:

(a) No later than the first day of the second month following the effective date of this section, and continuing for 12 months thereafter, a representative monthly sample of the coal used traditionally (not to include trial or test coal blends) by each affected source shall be collected from each of the units identified in subparagraph (b) and analyzed to determine the average mercury content of the fuel for each unit expressed in pounds of mercury input per ton of coal combusted at each affected source. The mercury content of the coal derived from these analyses

for each affected source shall be multiplied by the average annual throughput of coal for the period 2003, 2004, and 2005 (average tons of coal combusted per year) for each respective affected source to yield the average pounds of mercury input per year into each affected source. The sum of these annual input pound averages from each affected source shall equal the baseline mercury input.

(b) Determination of the mercury content of the coal shall follow appropriate ASTM testing procedures (ASTM D3684-01). For purposes of baseline mercury input determination, coal sampling shall occur at Merrimack Unit 1 and Unit 2, and at either Schiller Unit 4 or Unit 6, which shall serve to represent all Schiller units. At least 4 of the samples taken from each of these units shall correspond with the stack testing done at each of these units under paragraph II.

II. Baseline mercury emissions shall be determined as follows:

(a) A minimum of 4 stack tests shall be conducted at each of the units specified in subparagraph (b) using appropriate testing protocols, to determine a statistically valid average mercury emissions rate for each unit expressed in pounds of mercury emitted per ton of coal combusted at each affected source. The rate for each affected source shall be multiplied by the average annual throughput of coal for the period 2003, 2004, and 2005 (average tons of coal combusted per year) for each respective affected source to yield the average pounds of mercury emitted per year from each affected source. The sum of these annual emitted pound averages from each affected source shall equal the baseline mercury emissions.

(b) For purposes of the baseline mercury emissions determination, stack tests shall be conducted at Merrimack Unit 1 and Unit 2, and at either Schiller Unit 4 or Unit 6, which shall serve to represent all Schiller units. If mercury emissions improvements are made or are being made during the testing period, the stack tests shall be conducted without the improvements running at the time of the tests.

III. The owner shall provide its plans to accomplish the testing requirements under paragraphs I and II to the department for its approval. The owner shall provide written reports to the department, for verification and approval, that include the test results and calculations used to determine:

(a) The baseline mercury input. The owner shall submit the report no later than 15 months following the effective date of this section.

(b) The baseline mercury emissions. The owner shall submit the report no later than 18 months following the effective date of this section.

Source. 2006, 105:1, eff. June 8, 2006.

Section 125-O:15

125-O:15 Monitoring of Mercury Emissions. – Prior to the availability and operation of continuous emissions monitoring (CEM) systems, and subsequent to the baseline emissions testing under RSA 125-O:14, II, stack tests or another methodology approved by the department shall be conducted twice per year to determine mercury emissions levels from the affected sources. Any stack tests performed shall employ a federally recognized and approved methodology, proposed by the owner and employing a test protocol approved by the department. When a federal performance specification takes effect, and a mercury CEM system capable of meeting the federal specifications becomes available, a mercury CEM system, approved by the department, shall be installed at Merrimack Units 1 and 2 and at other affected sources as deemed appropriate by the department.

Source. 2006, 105:1, eff. June 8, 2006.

Section 125-O:16

125-O:16 Economic Performance Incentives. –

I. (a) The department shall issue to the owner early emissions reduction credits in the form of credits or fractions thereof for each pound of mercury or fraction thereof reduced below the baseline mercury emissions, on an annual basis, in the period prior to July 1, 2013. Ratios of early reductions credits to pounds of mercury reduced shall be as follows: 1.5 credits per pound reduced prior to July 1, 2008; 1.25 credits per pound for reductions between July 1, 2008 and December 31, 2010; and 1.1 credits per pound for reductions between January 1, 2011 and July 1, 2013.

(b) Reductions shall be calculated based upon the results of stack tests conducted, measurement by continuous emission monitoring, or other methodology approved by the department to confirm emissions during the time of operation of mercury reduction technology. Early emissions reduction credits may be banked by the owner or utilized after July 1, 2013 to meet the reduction requirement of RSA 125-O:13, II as allowed under RSA 125-O:13, VII. Early emissions reduction credits are not sellable or transferable to non-affected sources; however, upon the July 1, 2013 compliance date, the owner may request a one-for-one conversion of early emissions reduction credits to over-compliance credits.

(c) Should a federal rule applicable to mercury emissions at one or more of the affected sources be enacted with an implementation date prior to July 1, 2013, then early reduction credits may only be earned for emissions reductions that exceed the level required by the federal rule of the affected sources in aggregate or the baseline mercury emissions level, whichever is lower, at the same ratios listed in subparagraph (a).

(d) Early emissions reduction credits shall not be used for compliance with the requirement of RSA 125-O:13, II prior to the installation of scrubber technology, and shall not be used as a means to delay the installation of the scrubber technology.

II. (a) The department shall issue to the owner over-compliance credits in the form of credits or fractions thereof for each pound of mercury or fraction thereof reduced in excess of the emissions reduction requirement of RSA 125-O:13, II, on an annual basis, following the compliance date of July 1, 2013. The ratios of over-compliance credits to excess pounds of mercury reduced shall be as follows: 0.5 credits per pound reduced for reductions between 80 and 85 percent; 1 credit per pound reduced for reductions between 85 and 90 percent reduction; and 1.5 credits per pound reduced for reductions of 90 percent or greater. Over-compliance credits may be banked for future use. The requirements of RSA 125-O:13, V shall not alter the emissions levels at which over-compliance credits are earned.

(b) Should a federal rule applicable to mercury emissions at one or more of the affected sources be enacted, then over-compliance credits may only be earned for emissions reductions that exceed the level required by the federal rule of the affected sources in aggregate or the requirement of RSA 125-O:13, II, whichever is lower, at the same ratios listed in subparagraph (a).

(c) At the request of the owner of an affected source, over-compliance credits may be surrendered by the owner to the department and SO₂ allowances shall be transferred to the owner at a rate of 55 tons SO₂ allowances for every one over-compliance credit. Transfer shall be limited to a maximum of 20,000 total tons SO₂ allowances transferred in a given year, defined as the sum of all SO₂ allowances received by the affected sources under RSA 125-O:4, IV(a)(2) and IV(a)(3), and under this subparagraph. SO₂ allowances shall be credited to the affected sources' accounts in the following year in accordance with RSA 125-O:4, IV(a)(4).

Source. 2006, 105:1, eff. June 8, 2006.

Section 125-O:17

125-O:17 Variances. – The owner may request a variance from the mercury emissions reduction requirements of this subdivision by submitting a written request to the department. The request shall provide sufficient information concerning the conditions or special circumstances on which the variance request is based to demonstrate to the satisfaction of the department that variance from the applicable requirements is necessary.

I. Where an alternative schedule is sought, the owner shall submit a proposed schedule which demonstrates reasonable further progress and contains a date for final compliance as soon as practicable. If the department deems such a delay is reasonable under the cited circumstances, it shall grant the requested variance.

II. Where an alternative reduction requirement is sought, the owner shall submit information to substantiate an energy supply crisis, a major fuel disruption, an unanticipated or unavoidable disruption in the operations of the affected sources, or technological or economic infeasibility. The department, after consultation with the public utilities commission, shall grant or deny the requested variance. If requested by the owner, the department shall provide the owner with an opportunity for a hearing on the request.

Source. 2006, 105:1, eff. June 8, 2006.

Section 125-O:18

125-O:18 Cost Recovery. – If the owner is a regulated utility, the owner shall be allowed to recover all prudent costs of complying with the requirements of this subdivision in a manner approved by the public utilities commission. During ownership and operation by the regulated utility, such costs shall be recovered via the utility's default service charge. In the event of divestiture of affected sources by the regulated utility, such divestiture and recovery of costs shall be governed by the provisions of RSA 369:B:3-a.

Source. 2006, 105:1, eff. June 8, 2006.

Regional Greenhouse Gas Initiative

Section 125-O:19

125-O:19 Statement of Purpose and Findings. – The general court finds that global climate change is a significant environmental problem which could already be contributing to changes in New Hampshire average temperatures, frequency of extreme storm events, number of days with snow cover, timing of spring river flows, and date of spring blooms. Recent studies and scientific evidence indicate that global climate change is caused by a buildup of natural and manmade greenhouse gases in the atmosphere. Carbon dioxide (CO₂) is a significant greenhouse gas that contributes to global climate change. Therefore, the purpose of this subdivision is to reduce greenhouse gas emissions resulting from energy use in New Hampshire.

Source. 2008, 182:2, eff. June 11, 2008.

Section 125-O:20

125-O:20 Definitions. – In this subdivision:

I. "Affected CO₂ source" means any source with one or more fossil fuel-fired electricity generating units having a nameplate rated capacity equal to or greater than 25 megawatts.

II. "Budget allowances" means those RGGI allowances comprising the state annual budget for CO₂ emissions specified in RSA 125-O:21, II.

III. "Commission" means the public utilities commission.

IV. "Compliance period" means a 3 calendar year time period, unless extended one calendar year by a stage-2 trigger event. The first compliance period is from January 1, 2009 to December 31, 2011, unless a stage-2 trigger event extends the first compliance period to December 31, 2012. Each subsequent sequential 3 calendar year period is a separate compliance period subject to a one-year extension if a stage-2 trigger event occurs during the compliance period. The compliance period shall never be longer than 4 calendar years.

V. "Consumer price index" or "CPI" means the United States Department of Labor, Bureau of Labor Statistics unadjusted consumer price index for all urban consumers for the United States city average, for all items on the latest reference base, or if such index is no longer published, such other index as the department determines is appropriate. The CPI for any calendar year is the 12-month average of the CPI published by the United States Department of Labor, as of the close of the 12-month period ending on August 31 of each calendar year.

VI. "Department" means the department of environmental services.

VII. "Early reduction allowances" means allowances provided to affected CO₂ sources for eligible projects undertaken which have the effect of reducing emissions at the affected CO₂ source by an absolute reduction of emissions during calendar years 2006, 2007, and 2008, from a baseline approved by the department, through emission rate improvements or permanently reducing utilization of one or more units at a source.

VIII. "International trading programs" means international programs approved by the department such as the European Emission Trading Scheme (ETS) and offset credits established under the Clean Development Mechanism (CDM) to be used to obtain equivalent RGGI offset allowances pursuant to RSA 125-O:22, II(b).

IX. "Market settling period" means the first 14 months of any compliance period.

X. "Offset allowances" means allowances issued to projects determined to be eligible by the department undertaken outside of the electric power sector to reduce CO₂ or CO₂ equivalent emissions.

XI. "PSNH" means Public Service Company of New Hampshire or any successor to the company's public utility franchise.

XII. "Regional greenhouse gas initiative" or "RGGI" or "RGGI program" means the program to implement the memorandum of understanding (MOU) between signatory states, dated December 20, 2005, as amended on August 8, 2006 and April 20, 2007, and the corresponding model rule to establish a regional CO₂ emissions budget and allowance trading program for emissions from fossil fuel-fired electricity generating units.

XIII. "Regional organization" means a non-profit organization formed by the signatory states to RGGI to provide technical and administrative assistance for such things as: emissions and allowance tracking, offsets development and implementation, allowance market monitoring, and data collection. The organization shall have no regulatory or enforcement authority.

XIV. "Retire" means submitting a RGGI allowance to the department for compliance or other purpose or retaining a RGGI allowance by the department such that the allowance may never be sold or otherwise used again.

XV. "RGGI allowance" means a limited authorization to emit one ton of CO₂ issued by the department or other RGGI signatory state in accordance with this subdivision or the RGGI program and shall include budget allowances, offset allowances, and early reduction allowances.

XVI. "Stage-one trigger event" means a 12-month rolling average CO₂ allowance price that is equal to or greater than \$7 in 2005 dollars, such figure adjusted annually on January 1 of each calendar year according to the consumer price index, but only when such a rolling average price occurs in any 12-month period beginning after the end of the market settling period.

XVII. "Stage-2 trigger event" means a 12-month rolling average CO₂ allowance price that is equal or greater than \$10 in 2005 dollars, such figure adjusted annually on January 1 of each calendar year according to the consumer price index plus 2 percentage points, but only when such a rolling average price occurs in any 12-month period beginning after the end of the market settling period.

Source. 2008, 182:2, eff. June 11, 2008.

Section 125-O:21

125-O:21 Carbon Dioxide Emissions Budget Trading Program. –

I. The department shall establish and enforce a CO₂ emissions budget trading program consistent with this subdivision that shall be in substantial accordance with the RGGI program.

II. The program shall include a statewide annual budget allowance of 8,620,460 tons during the years 2009 through 2014. Beginning January 1, 2015 and ending December 31, 2018, the budget shall decline by 215,512 tons per year, resulting in a 10 percent total reduction from the initial budget, after which it shall remain unchanged until further legislative action.

III. The department shall make available for sale at one or more auctions all of the budget allowances for a given year, except for those granted or reserved under RSA 125-O:22, VI, 125-O:24, and 125-O:25. The department may also make available for sale at one or more auctions a portion of future year budget allowances. Such auctions may be conducted in coordination with other states. Revenues from the sale of allowances shall be deposited in the greenhouse gas emissions reduction fund established under RSA 125-O:23.

IV. The department shall grant to affected CO₂ sources early reduction allowances, at no cost, for projects eligible to receive such allowances.

V. The department shall grant offset allowances to owners of eligible offset projects located in New Hampshire.

VI. The department and the commission shall report on an annual basis to the air pollution advisory committee under RSA 125-J:11 and the legislative oversight committee on electric utility restructuring under RSA 374-F:5, on the status of the implementation of RGGI in New Hampshire, with emphasis on the prices and availability of RGGI allowances to affected CO₂ sources and the trends in electric rates for New Hampshire businesses and ratepayers. The report shall include but not be limited to:

(a) The number of allowances sold in the RGGI program and the type of entities purchasing allowances;

- (b) The number of unsold allowances in the RGGI program;
- (c) The available price data of allowances from the regional auction and secondary markets;
- (d) Market monitoring reports;
- (e) The CO₂ emissions by affected source, state, and RGGI region;
- (f) The spending of revenues from auction allowances by each RGGI state; and
- (g) The allocation and spending of the greenhouse gas emissions reduction fund, including associated energy savings and emissions reductions.
- (h) The status of any proposed or adopted federal CO₂ cap and trade program, the impact on New Hampshire's RGGI program, and recommendations for any proposed legislation necessary to accommodate the federal program.

VII. The department may establish and enforce the CO₂ emissions budget trading program in cooperation and coordination with other states or countries that are participating in regional, national or international CO₂ emissions trading programs with the same or similar purpose including:

(a) Entering into any agreement or arrangement with the representatives of other states, including the formation of a for-profit or non-profit corporation, any form of association or any other form of organization, in this or another state; and

(b) Participating in any such corporation, association, or organization, and in any activity in furtherance of the purposes of this subdivision, in any capacity including, but not limited to, as directors or officers.

VIII. Any actions taken under this subdivision by the department or the commission shall not constitute a waiver of sovereign immunity and shall not be deemed consent to suit outside of New Hampshire.

Source. 2008, 182:2, eff. June 11, 2008.

Section 125-O:22

125-O:22 Compliance; Permit Required. –

I. Each affected CO₂ source shall obtain and retire a quantity of RGGI allowances equivalent to its CO₂ emissions from fossil-fuel fired generation for each compliance period.

II. An affected CO₂ source may use offset allowances for up to 3.3 percent of its compliance obligation, except that in a given compliance period:

(a) If a stage-one trigger event occurs, an affected CO₂ source may use offset allowances for up to 5 percent of its compliance obligation; and

(b) If a stage-2 trigger event occurs, the compliance period shall be extended to 4 years and an affected CO₂ source may use offset allowances for up to 10 percent of its compliance obligation, including offset allowances or credits permanently retired from eligible international trading programs, as approved by the department.

III. Purchasers or acquirers of RGGI allowances may retain unused RGGI allowances without limit. Affected CO₂ sources may use retained RGGI allowances in future compliance periods.

IV. No person shall operate an affected CO₂ source without a temporary or operating permit issued by the department in accordance with this chapter and RSA 125-C. An affected CO₂ source that is in operation upon the effective date of this subdivision, shall submit a complete application for a permit modification to the department no later than January 1, 2009. Applications for permits shall be upon such forms, and shall include such information as the commissioner requires under rules adopted pursuant to RSA 541-A. The commissioner shall act upon a permit application within a reasonable period of time.

V. In addition to the provisions set forth in RSA 125-O:7, an affected CO₂ source that fails to obtain and retire sufficient RGGI allowances during a compliance period, in accordance with RSA 125-O:22, I, shall obtain and surrender 3 RGGI budget or early reduction allowances in the next compliance period for each RGGI allowance that the affected CO₂ source was short in obtaining compliance.

VI. Budget allowances shall be provided to affected CO₂ sources as needed and upon request for CO₂ emissions in periods of operation during which an Operating Procedure 4 capacity deficiency alert is in force as

established by the ISO New England Inc. The department shall reserve from auction for such emergency conditions a quantity of allowances equal to one percent of the annual budget allowances which shall be the maximum made available in a given year under this paragraph. The department shall directly sell these allowances to the affected CO₂ sources at the last regional auction clearing price. Those allowances reserved but not sold in a given year as provided in this paragraph shall be auctioned the following calendar year.

VII. Upon recommendation of the commission, the governor with consent of the executive council may declare an emergency supply crisis, and the governor and council may allow affected CO₂ sources to forgo strict compliance with paragraph I for a given compliance period and be given reprieve from any associated penalties, provided that those affected CO₂ sources obtain and retire an additional number of allowances during the next compliance period equivalent to any shortfall in allowances that may have occurred for the compliance period during which the declared emergency was made.

VIII. A distribution company may recover the actual, prudent and reasonable costs of investments in carbon emissions reduction or capture technologies through its default service charge pursuant to RSA 369-B:3, IV(b)(1)(A), provided that the commission first determines that the investment is in the public interest.

Source. 2008, 182:2, eff. June 11, 2008.

Section 125-O:23

125-O:23 Greenhouse Gas Emissions Reduction Fund. –

I. There is hereby established a greenhouse gas emissions reduction fund. This nonlapsing, special fund shall be continually appropriated to the commission to be expended in accordance with this section. The state treasurer shall invest the moneys deposited therein, as provided by law. Income received on investments made by the state treasurer shall also be credited to the fund. All programs supported by these funds shall be subject to audit by the commission as deemed necessary. A portion of the fund moneys shall be used to pay for commission and department costs to administer this subdivision, including contributions for the state's share of the costs of the RGGI regional organization. Any new employee positions to be paid for using fund moneys shall be approved by the fiscal committee of the general court pursuant to RSA 124:15. The commission shall transfer from the fund to the department such costs as may be budgeted and expended, or otherwise approved by the fiscal committee and the governor and council, for the department's cost of administering this subdivision.

II. Fund moneys shall be used to support energy efficiency, conservation, and demand response programs to reduce greenhouse gas emissions generated within the state, which may include programs proposed and administered by private entities, as well as by the department, the commission, and other state and local governmental agencies. Such programs may include, but not be limited to, improving the electrical and thermal energy efficiency of New Hampshire's residential housing and commercial building stock via weatherization, energy auditing, energy efficiency related work force training and development, revolving loan funds for efficiency related investment, related industrial process and control systems, integration of passive solar heating and ventilation systems, and efforts to increase adherence to energy related building and electrical codes. These funds shall not be transferred or used for any other purpose.

III. At least 10 percent of the moneys shall be used to assist low-income residential customers, as defined by the commission and in a manner compatible with other low-income programs administered by the commission, to reduce total energy use including heating fuels and to foster the development and retrofitting of highly efficient and affordable housing.

IV. Notwithstanding paragraphs I, II, and III, all amounts in excess of the threshold prices listed below for any allowance sale made prior to January 1, 2016 that are deposited in the fund shall be rebated to all electric ratepayers in the state on a per-kilowatt-hour basis, in a timely manner, to be determined by the commission. For the following years listed, the threshold price shall be:

- (a) 2009, \$6/ton.
- (b) 2010, \$8/ton.
- (c) 2011 and 2012, \$9/ton.
- (d) 2013 and 2014, \$12/ton.
- (e) 2015, \$15/ton.

(f) After 2015, no threshold price.

V. In the event that the commission finds that a significant amount of unencumbered dollars have accumulated in the greenhouse gas emissions reduction fund, and are not needed for program purposes, the commission shall refund such unencumbered dollars to ratepayers in a timely manner.

VI. All penalties collected pursuant to this subdivision shall be deposited in the greenhouse gas emissions reduction fund.

VII. In selecting programs to be funded under this section the commission shall consider, at a minimum, the extent to which the proposed program can be expected to:

(a) Reduce greenhouse gas emissions from all fuels used to provide electricity, heating, and cooling in New Hampshire;

(b) Be cost-effective;

(c) Reduce New Hampshire's peak electric load;

(d) Promote market transformation, innovative technology and economic development, and energy cost savings; and

(e) Otherwise be consistent with the public interest and the purposes of this subdivision.

Source. 2008, 182:2, eff. June 11, 2008.

Section 125-O:24

125-O:24 Conversion of Allowances. –

I. PSNH shall receive credit for allowances received prior to the inception of the RGGI program in the manner described in this section.

II. PSNH shall submit all necessary documentation to the department by January 30, 2009 relative to compliance with RSA 125-O:3, III(d).

III. PSNH shall submit all necessary documentation to the department within 90 days of the effective date of this paragraph relative to RSA 125-O:5, III.

IV. As soon as practicable after the start of the program, the department shall determine the number of allowances previously allocated to PSNH under RSA 125-O:3, II or awarded to PSNH under RSA 125-O:5, III, that remain in PSNH's account of CO₂ allowances held by the department as banked allowances, after the company has completed compliance with the emissions cap of RSA 125-O:3, III(d) for the 2007 and 2008 calendar years.

V. At the distribution rate specified in paragraph VI, the department shall grant to PSNH budget allowances, at no cost, equivalent to the total of the banked allowances pursuant to paragraph IV minus the early reduction allowances granted to PSNH under RSA 125-O:21, IV. PSNH shall be obligated to apply for early reduction allowances for any eligible projects it has undertaken.

VI. The department shall grant budget allowances pursuant to this section as expeditiously as possible, but in no event shall the amount of budget allowances granted pursuant to this section total more than 2.5 million allowances per year in years 2009, 2010, and 2011, and 1.5 million allowances in each year thereafter. For each budget allowance granted, one banked allowance shall be retired.

VII. In the event the state no longer participates in the RGGI program due to legislative action or the RGGI program becomes invalid or unenforceable as determined by the department and certified to the secretary of state, the department shall cease granting budget allowances pursuant to paragraphs V and VI. Notwithstanding the other provisions of this section, PSNH shall have no right or claim to receive any additional budget allowances under this section beyond those already granted to it up to that point in time when participation in the program has ceased or the program has become invalid or unenforceable. If this point in time occurs part way through a year, the number of budget allowances given to PSNH for that year shall be pro-rated based on the distribution rate in effect for that year, provided the total amount of allowances calculated pursuant to paragraph IV has not already been granted to PSNH.

VIII. The department shall not grant budget allowances after December 31, 2014 pursuant to this section without legislative authorization to continue the granting of allowances. Notwithstanding the other provisions of this section, PSNH shall have no right or claim to receive any additional budget allowances under this section beyond those already granted by December 31, 2014, should the legislature not authorize continuation of the

allowance granting.

IX. No remaining banked allowances held by the department originating from the calculation performed under paragraph IV, shall be used for RGGI compliance purposes after the department ceases to grant budget allowances in accordance with paragraph VII or VIII. These remaining banked allowances shall not be used for compliance or exchanged for value in any existing or future federal program. When developing future state programs, the legislature may recognize the existence of these remaining banked allowances when determining the future compliance obligations of PSNH.

Source. 2008, 182:2, eff. June 11, 2008.

Section 125-O:25

125-O:25 Set Aside for Voluntary Purchase of Renewable Energy Certificates. –

I. The department shall reserve from auction, for retirement purposes, a quantity of budget allowances, not to exceed one percent of the annual budget, equivalent to the CO₂ emissions reductions associated with renewable energy certificates recognized under RSA 362-F and purchased voluntarily by electricity customers and not resold.

II. Budgeted allowances reserved under paragraph I not retired at the end of each year shall be auctioned the following calendar year.

Source. 2008, 182:2, eff. June 11, 2008.

Section 125-O:26

125-O:26 Auction of Budget Allowances. – Any rules adopted by the department relative to auctions, pursuant to RSA 125-O:8, I(d), shall provide that they:

I. Shall be conducted based on the schedule and frequency adopted by the department in consultation with other entities participating in the RGGI program;

II. Shall include the sale of allowances for current and future years to promote transparency and price stability in a manner to be determined by the department in coordination with the regional organization;

III. Shall include auction design elements that minimize allowance price volatility, guard against bidder collusion, and mitigate the potential for market manipulation;

IV. Shall include provisions to address, and to the extent practicable minimize, the potential for allowance market price volatility during the initial control period of the RGGI program;

V. Shall include provisions to ensure the continued market availability of allowances to entities regulated under a greenhouse gas emissions allowance trading program, taking into account the outcomes of auctions and monitoring of the allowance market, which may include the adoption of a flexible process that allows for ongoing modification of auction design and procedures in response to allowance market conditions and allowance market monitoring data, provided that the process allows for public comment and input; and

VI. May be open to all qualified participants, and all qualified participants may sell or otherwise agree to transfer any or all allowances to any eligible entity.

Source. 2008, 182:2, eff. June 11, 2008.

Section 125-O:27

125-O:27 Review of the New Hampshire RGGI Program. – At the time of the 2012 comprehensive review by the signatory states as required in the MOU, the commission and the department shall concurrently review New Hampshire specific elements of the RGGI program, in particular 125-O:23, IV and 125-O:25, and include the results of such review in the agencies' annual report under RSA 125-O:21, VI.

Source. 2008, 182:2, eff. June 11, 2008.

Section 125-O:28

125-O:28 Cost Recovery. – If the owner of an affected CO₂ source is a public utility pursuant to RSA 362:2 that provides electric distribution service pursuant to RSA 374-F, the owner may recover through the utility's default service charge all prudently incurred costs of complying with the requirements of this subdivision in a manner approved by the commission. In the event PSNH sells an affected CO₂ source, any cost recovery associated with this chapter shall be governed by RSA 369-B:3-a.

Source. 2008, 182:2, eff. June 11, 2008.

TITLE XXXIV PUBLIC UTILITIES

CHAPTER 369-B ELECTRIC RATE REDUCTION FINANCING AND COMMISSION ACTION

Section 369-B:1

369-B:1 Declaration of Purpose and Findings. – The general court finds that:

I. The restructuring of electric utilities to allow retail electric competition and less costly regulation is in the public interest. New Hampshire is implementing such restructuring to create retail customer choice, which will provide retail electric service at lower costs.

II. The divestiture of electric generation by New Hampshire electric utilities will facilitate the competitive market in generation service. Further, the proceeds of generation divestitures may decrease rates for the customers of transmission and distribution utilities.

III. The establishment of structured financing options for electric utilities will facilitate reductions in transmission and distribution rates for all customer classes, thereby advancing the near term rate relief principle of RSA 374-F:3, XI, without creating any debt or financial obligation of the state or other adverse impacts upon the state's finances or credit rating.

IV. The state agrees that its pledge, contract, and agreement and the pledge of the commission not to impair the rights or remedies of holders of rate reduction bonds creates a secure expectation of repayment on the part of such holders.

V. Pursuant to 1999, 289:3, I, the commission has held hearings regarding the original proposed settlement to restructure the Public Service Company of New Hampshire (PSNH) and has issued its April 19 order, accepting the original proposed settlement as being in the public interest and consistent with New Hampshire law, and as a final resolution of the dockets listed therein, subject to the conditions listed in the April 19 order.

VI. Pursuant to 1999, 289:3, I, the commission has held hearings with respect to the securitization proposal contained in the original proposed settlement and has found that implementation of that securitization proposal, subject to the conditions listed in the April 19 order, will result in benefits to customers that are substantially consistent with the principles contained in RSA 374-F:3 and RSA 369-A:1, X and with RSA 369-A:1, XI.

VII. Implementation of that securitization proposal, subject to the conditions listed in the April 19 order, and as further modified in this chapter, will result in benefits to customers that are substantially consistent with the principles contained in RSA 374-F:3 and RSA 369-A:1, X and with RSA 369-A:1, XI.

VIII. Implementation of securitization to achieve the purposes of this chapter requires enactment of further enabling legislation by the general court, and it is in the public interest to pass such further enabling legislation in the form of this chapter.

IX. Approval by the commission of a finance order for PSNH that is consistent with the April 19 order, with subsequent modifications, and subject to the conditions and requirements of this chapter, that is consistent with the conditions of RSA 369-B:3, IV(b), and that is otherwise substantially consistent with RSA 374-F:3, RSA 369-A:1 and RSA 369-B:1 is in the public interest.

X. The differences among rate classes in the amount of the stranded cost recovery charge in the April 19 order are in the public interest. When these differences are combined with the differences in the delivery service charge among rate classes, and with the differences in the likely market price of energy among rate classes, the overall total rate reduction is likely to be very close to an equal percentage for all rate classes, which is consistent with the benefits for all customers principle of RSA 374-F:3, VI. However, it is also in the public interest that any further adjustments to charges between the estimated amounts in the April 19 order and 24 months after competition day be applied equally in cents per kilowatt-hour for all rate classes to which they apply.

XI. The renegotiation of the power purchase obligations requiring PSNH to purchase power from the 6 wood-to-energy facilities and the one trash-to-energy facility is in the public interest in order to reduce the total cost to

ratepayers of these obligations, and the sharing of the benefits among ratepayers and all of the parties involved in the renegotiations is in the public interest.

XII. It is in the public interest in the event that the price of transition service during the period that transition service is provided by PSNH exceeds PSNH's actual, prudent and reasonable costs of providing such power so as to create a credit to customers that must be reconciled, that the allocation of this credit between a reduction of the stranded cost recovery charge and a reduction of the duration of stranded cost recovery be made by the commission in a manner that it finds to be in the public interest.

XIII. The commission should design low income programs in a manner that targets assistance and has high operating efficiency, so as to maximize the benefits that go to the intended beneficiaries of the low income program.

XIV. The general court requests that the supreme court and any other courts asked to rule on any matters pertaining to the subject matter of this chapter act as expeditiously as possible. Time is of the essence.

XV. The effect of the stranded cost recovery charge contained in the back-up Delivery Service Rate B tariff as filed by PSNH with its original proposed settlement is just and reasonable, and does not create a charge similar to or have the same effect as an exit fee; provided that not later than 33 months after competition day, the commission shall initiate a rate case on transmission and distribution or delivery services, and this rate case shall establish a back-up charge that is just and reasonable and based on the cost of providing such back-up services, including all applicable stranded cost recovery charges, RRB charges, system benefits charges, and taxes, and retrospectively take effect immediately after 33 months after competition day.

Source. 2000, 249:2, eff. June 12, 2000.

Section 369-B:2

369-B:2 Definitions. – In this chapter:

I. "April 19 order" means commission Order No. 23,443 in Docket DE 99-099 as it was issued on April 19, 2000, excluding any subsequent amendments.

II. "Commission" means the public utilities commission established in RSA 363, as it may be constituted from time to time, and any successor agency exercising functions similar in purpose to such commission.

III. "Competition day" means competition day as defined in the original proposed settlement, as adjusted by subsequent modifications .

IV. "Electric utility" means a public utility as defined in RSA 362:2 that provides retail electric service.

V. "Finance order" means an order of the commission adopted prior to or following the effective date of this chapter pursuant to 1999, 289:3, I, pursuant to this chapter, or pursuant to both 1999, 289:3, I and this chapter.

VI. "Financing entity" means any special purpose trust, limited liability company, non-profit corporation, or other entity that is authorized in accordance with the terms of a finance order to issue rate reduction bonds, acquire RRB property, or both on behalf of the electric utility, or any combination of such entities.

VII. "Initial transition service end day" means 33 months after competition day.

VIII. "Original proposed settlement" means the "Public Service Company of New Hampshire Restructuring Settlement Agreement" filed with the commission on August 2, 1999.

IX. "PSNH" means Public Service Company of New Hampshire.

X. "Rate reduction bonds" ("RRB") means bonds, notes, certificates of participation or beneficial interest, or other evidences of indebtedness or ownership, issued pursuant to an executed indenture or other agreement of a financing entity, in accordance with this chapter, 1999, 289:3, I and II, and RSA 369-A, the proceeds of which are used, directly or indirectly, to provide, recover, finance, or refinance RRB costs, and which, directly or indirectly, are secured by, evidence ownership interests in, or are payable from, RRB property.

XI. "Retail customer" means any person or entity purchasing directly or otherwise obtaining or being supplied directly with retail electric service for end use consumption, including those served under special contracts.

XII. "Retail electric service" means the delivery of electric power through the provision of transmission and/or distribution service by an electric utility to a retail customer, regardless of such retail customer's source of electric power, and shall include any back-up, maintenance, emergency, and other delivery service provided to a retail customer by an electric utility.

XIII. "RRB charge" means those retail electric service rates that are authorized by the commission in a finance

order to recover those RRB costs that are eligible to be funded with the proceeds of rate reduction bonds pursuant to this chapter and the costs of providing, recovering, financing, or refinancing such RRB costs through a plan approved by the commission in the finance order, including the costs of issuing, servicing, and retiring rate reduction bonds. The RRB charge authorized by the commission may vary by cost of service, by customer class, and between special contract customers. All RRB charges shall be assessed on a per kilowatt-hour basis, and shall be non-bypassable as provided in RSA 369-B:4, IV.

XIV. "RRB costs" means expenditures which are incurred by an electric utility or which an electric utility is obligated to incur either prior to or subsequent to the effective date of this chapter, and costs approved by the commission to mitigate such expenditures, as shall be designated in a finance order approved by the commission and which may include but are not limited to:

- (a) Expenditures incurred in respect of generation assets, entitlements, and acquisition premiums.
- (b) Expenditures incurred in respect to the buyout, buydown, restructuring or renegotiation of power purchase obligations.
- (c) Expenditures incurred in respect to regulatory assets.
- (d) Expenditures incurred to refinance or retire existing debt or existing equity capital of the electric utility and any costs related thereto.
- (e) Amounts necessary to recover federal or state taxes actually paid by an electric utility, which tax liability recovery is modified by the transactions approved in a finance order issued by the commission pursuant to this chapter.

(f) Reasonable costs, as approved by the commission, relating to the issue, servicing, or refinancing of rate reduction bonds under the provisions of this chapter, including, without limitation, principal and interest payments and accruals, sinking fund payments, debt service and other reserves, costs of credit enhancement, indemnities, if any, owed to the state or the trustee for the rate reduction bonds, issuance costs and redemption premiums, if any, and all other reasonable fees, costs, and charges in respect of rate reduction bonds.

XV. "RRB property" means the irrevocable vested property right created pursuant to this chapter and one or more finance orders, including, without limitation, the right, title, and interest of an electric utility or a financing entity in and to all revenues, collections, claims, payments, money, or proceeds of or arising from the RRB charge authorized to be imposed and collected pursuant to such finance orders to recover RRB costs and the costs of paying, financing, reimbursing, or refinancing the RRB costs, including the reasonable costs of issuing, servicing, and retiring rate reduction bonds, and in and to all rights to obtain adjustments to such RRB charge pursuant to the terms of RSA 369-B:4, III and the finance order, all as determined by the commission in its approval of such finance orders. "RRB property" shall constitute a current and irrevocable vested property right, notwithstanding the fact that the value of such property right may depend upon electricity usage or the performance of certain services.

XVI. "Security interest" means a security interest as defined in RSA 382-A:1-201(37).

XVII. "Service territory" means, with respect to any electric utility, the geographic area established by the commission as the retail electric service territory of such electric utility, as such territory is depicted on the "Electric Utilities Franchise Areas" map issued by the commission, dated July 1, 1993, together with any other geographic area in which such electric utility actually provided retail electric service on such date and any new geographic areas in which such electric utility is granted a franchise for the provision of retail electric service subsequent to such date.

Source. 2000, 249:2, eff. June 12, 2000. 2001, 29:9, eff. May 22, 2001. 2003, 56:1, eff. July 20, 2003.

Section 369-B:3

369-B:3 Authority to Issue Finance Orders to Finance RRB Costs. –

I. The commission is authorized, upon the petition of an electric utility and after a hearing, to issue one or more finance orders pursuant to which rate reduction bonds shall be issued, if the commission finds that the issuance of such finance order or finance orders is in the public interest as set forth in RSA 369-B:1, IX. Any finance order adopted pursuant to 1999, 289:3, I and II prior to the effective date of this chapter shall, following the effective date of this chapter, be deemed to be authorized by this chapter, provided the commission has made the required finding pursuant to RSA 369-B:3, IV(b).

II. Notwithstanding any law, rule, or regulation to the contrary, except as otherwise provided in RSA 369-B:4, III with respect to RRB property, the finance orders and the RRB charge authorized to be imposed and collected pursuant to such finance orders shall be irrevocable, and the commission shall not have authority either by rescinding, altering, or amending the finance order or otherwise, to directly or indirectly, revalue or revise for ratemaking purposes the RRB costs, or the costs of providing, recovering, financing, or refinancing the RRB costs, determine that such RRB charge is unjust or unreasonable, or in any way reduce or impair the value of RRB property either directly or indirectly by taking such RRB charge (other than any portion of such RRB charge constituting a servicing fee payable to the electric utility) into account when setting other rates for the electric utility; nor shall the amount of revenues arising with respect thereto be subject to reduction, impairment, postponement, or termination.

III. Notwithstanding any law, rule, or regulation to the contrary, any requirement under this chapter, under 1999, 289:3, I and II, under RSA 369-A, or under a finance order that the commission take action with respect to the subject matter of a finance order shall be binding upon the commission, and the commission shall have no authority to rescind, alter, or amend that requirement.

IV. The commission shall only issue finance orders that:

(a) Authorize the issuance of an aggregate principal amount of not more than \$130,000,000 in rate reduction bonds to finance renegotiated agreements of the existing power purchase obligations requiring PSNH to purchase power from the 6 wood-to-energy facilities and the one trash-to-energy facility; and/or

(b) Authorize the issuance of an aggregate principal amount of not more than \$670,000,000, minus \$6,000,000 for each month from October 1, 2000 to competition day, in rate reduction bonds. This authorization is in addition to any amount authorized in subparagraph (a). This issuance must be part of a settlement approved by the commission under RSA 374-F to implement electric utility restructuring within the service territory of PSNH. As part of any finance order under this subparagraph (b), the commission must find that the rate reduction bonds authorized by the finance order are consistent with the April 19 order, with any subsequent modifications. Any finance order that is issued under this subparagraph (b) shall also contain a statement of the following conditions, and a finding of the commission that the finance order is consistent with the following conditions:

(1) (A) From competition day until the completion of the sale of PSNH's ownership interests in fossil and hydro generation assets located in New Hampshire, PSNH shall supply all, except as modified pursuant to RSA 374-F:3, V(f), transition service and default service offered in its retail electric service territory from its generation assets and, if necessary, through supplemental power purchases in a manner approved by the commission. The price of such default service shall be PSNH's actual, prudent, and reasonable costs of providing such power, as approved by the commission;

(B) (i) Transition service for residential customers, street lighting customers, and general delivery service rate G customers shall be available until at least 24 months after initial transition service end day or as extended by the commission under RSA 374-F:3, V. From competition day until 21 months after competition day, the price of transition service for these customers shall be \$0.044 per kilowatt-hour together with, for those customers choosing a renewable energy transition service option under RSA 374-F:3, V(f), the price of the renewable energy component. From 21 months after competition day until initial transition service end day, the price of transition service for these customers shall be \$0.046 per kilowatt-hour together with, for those customers choosing a renewable energy transition service option under RSA 374-F:3, V(f), the price of the renewable energy component;

(ii) From initial transition service end day to the day that PSNH ceases to provide transition service, the price of transition service shall be PSNH's actual, prudent, and reasonable costs of providing such power, as approved by the commission, together with, for those customers choosing a renewable energy transition service option under RSA 374-F:3, V(f), the price of the renewable energy component. Thereafter, the price of transition service, if offered, shall be the competitively bid price for transition service, or as determined under RSA 374-F:3, V(e), together with, for those customers choosing a renewable energy transition service option under RSA 374-F:3, V(f), the price of the renewable energy component;

(iii) At the end of the transition service period, up to 25 percent of the residential customers, street lighting customers, and general delivery service rate G customers who have not chosen a competitive supplier may be assigned randomly to registered competitive suppliers other than the transition service supplier or suppliers, if the commission finds such random assignment to be in the public interest. The commission shall develop procedures and regulations for this assignment process. Any random assignment must be affirmatively approved by an individual customer;

(C) Transition service for all other customers shall be available until at least 12 months after initial transition service end day or as extended by the commission under RSA 374-F:3, V. From competition day to 21 months after competition day, the price of transition service for these customers shall be \$0.044 per kilowatt-hour together with, for those customers choosing a renewable energy transition service option under RSA 374-F:3, V (f), the price of the renewable energy component. From 21 months after competition day to the day that PSNH ceases to provide transition service, the price of transition service shall be PSNH's actual, prudent, and reasonable costs of providing such power as approved by the commission, together with, for those customers choosing a renewable energy transition service option under RSA 374-F:3, V(f), the price of the renewable energy component. Thereafter, the price of transition service, if offered, shall be the competitively bid price for transition service, or as determined under RSA 374-F:3, V(e), together with, for those customers choosing a renewable energy transition service option under RSA 374-F:3, V(f), the price of the renewable energy component;

(D) Any difference between the price of transition service, exclusive of the portion attributable to the renewable energy component under RSA 374-F:3, V(f), from competition day to the day that PSNH ceases to provide transition service and PSNH's actual, prudent, and reasonable costs of providing such power as determined by the commission shall first be separated between the 2 groups of customers described in subparagraphs (b)(1)(B) and (b)(1)(C), used first to offset any differences described in subparagraph (b)(1)(B), and the net then reconciled for each group of customers either by changing the recovery end date, or by decreasing the stranded cost recovery charge, or if the recovery end date has passed, by implementing some other form of equitable reconciliation, as the commission finds to be in the public interest;

(E) The commission shall retain the authority to reject any or all bids for transition service at its sole discretion if it finds such action to be in the public interest. Except as specifically provided in this section, the commission shall not accept any bid or implement any pricing strategy for transition service that creates any deferrals;

(F) The selection of a provider or providers of default service prior to 24 months after initial transition service end day may be combined with the selection of a provider or providers of transition service to the extent that the commission finds it to be in the public interest;

(2) No amount shall be securitized which was not listed as part of the \$688,000,000 proposed for securitization in the April 19 order, as reduced by any subsequent amortization;

(3) Customer savings shall be not less than the total amount of \$450,000,000, excluding savings from rate reduction financing and merger savings, including the \$367,000,000 contained in the original proposed settlement, and the \$6,200,000 resulting from the settlement of issues pertaining to New Hampshire Electric Cooperative, Inc. A commitment by PSNH to all of the following actions shall be deemed to satisfy this condition:

(A) PSNH shall credit customers with the higher return associated with accumulated deferred income taxes (ADITs) as proposed in PSNH's May 1, 2000 filing;

(B) PSNH shall credit customers with the value derived from using its own assets to provide transition service for a period of 9 months;

(C) PSNH shall extend from 30 months to 33 months the period during which the delivery service charge, exclusive of Hydro Quebec transmission support payments, is fixed at 2.8 cents per kilowatt-hour;

(D) PSNH shall absorb the first \$7,000,000 of difference of costs that results in the event that transition service costs during the 12 months following the initial transition service end day exceed the transition service price for that 12 months, as provided in RSA 369-B:3,IV(b)(1)(B)(i);

(E) PSNH shall reduce the maximum amount of necessary and prudent costs associated with the issuance of and closing on the securitization financing and any premiums associated with the retirement of debt and preferred stock from these proceeds that may be recovered from \$17,000,000 to \$15,000,000. PSNH shall include in its costs the first \$700,000 of the costs of the office of the state treasurer related to reviewing and issuing the rate reduction bonds;

(F) PSNH agrees to move the Recovery End Date (RED date) to 1 month earlier than it would otherwise be; and

(G) PSNH agrees that if competition day has not occurred by October 1, 2000, then effective October 1, 2000 PSNH shall temporarily reduce its current effective total rates (base rates plus FPPAC rates) by 5 percent across the board until either competition day or April 1, 2001, whichever occurs earlier.

(4) In the event that PSNH or its parent company is acquired or otherwise sold or merged:

(A) Such merger, acquisition, or sale shall be subject to the jurisdiction of the commission under RSA

369, RSA 374, RSA 378 or other relevant provisions of law, and the merger, acquisition, or sale shall be approved only if it is shown to be in the public interest;

(B) In recognition of the extraordinary benefits provided to PSNH from rate reduction financing, should PSNH or its parent company be acquired or otherwise sold or merged, such merger, acquisition or sale shall be subject to the jurisdiction of the commission under the standard set forth in the original proposed settlement. The commission may approve such a merger if such approval results in the receipt by PSNH customers of a just and reasonable amount of the cost savings that result from such merger, acquisition or sale.

(C) No acquisition premium paid by an acquiring company for the assets or securities of any acquired company, resulting from any such merger, acquisition or sale, may in any way increase rates at any time from what they would have been without the acquisition premium;

(5) The delivery service charge, exclusive of the Hydro Quebec transmission support payments, shall be fixed for a period of 33 months from competition day at \$0.028 per kilowatt-hour;

(6) The total system benefits charge shall be no greater than \$0.003 per kilowatt-hour for 33 months from competition day divided between low-income assistance and energy efficiency/conservation programs. In the event that the commission finds that a significant amount of unencumbered dollars have accumulated in either program, and are not needed for program purposes, the commission shall refund such unencumbered dollars to ratepayers in a timely manner;

(7) All currently existing opportunities shall be continued for retail customers to generate or acquire electricity for their own use, other than through retail electric service, without an exit fee;

(8) To the maximum extent allowed by federal law, non-discriminatory, open access to PSNH's transmission system shall be available to customers, electricity suppliers, marketers, aggregators, and municipal electric utilities, with charges based only on rates set by federal regulations, plus the actual cost of service for any services not subject to federal price regulation plus, for retail customers, applicable stranded cost recovery charges, RRB charges, systems benefit charges, and taxes;

(9) The stranded cost recovery charge, averaged over all customers, shall not exceed \$0.0340 per kilowatt-hour. Any changes in the delivery service charge, stranded cost recovery charge, transition service charge, systems benefit charge, or any other charge between the estimated amounts in the April 19 order and 24 months after competition day shall be applied as an equal change in the cost per kilowatt-hour for all rate classes to which they apply;

(10) The commission shall not order changes in the total rates of customers taking service under special contracts approved pursuant to RSA 378:18 for the duration of those special contracts in effect as of May 1, 2000. Special contract customers selecting option 2 of the original proposed settlement shall have the energy charges under the contract reduced by the initial transition service price;

(11) During any sale of electricity generation assets required by this settlement, neither PSNH, nor any affiliate of PSNH, nor any company that would become an affiliate of PSNH if an announced merger, acquisition or sale were to be consummated, may bid for those assets;

(12) During any competitive bid process to determine a provider or providers of transition service, or of default service to any customer belonging to a rate class that at the time of service is eligible to receive transition service, neither PSNH, nor any affiliate of PSNH, nor any company that would become an affiliate of PSNH if an announced merger, acquisition or sale were to be consummated, may bid to provide such service;

(13) The commission shall administer the liquidation of any electricity generation assets required to be sold by the settlement. Any sale of assets located in the state of New Hampshire that are administered by the commission pursuant to this paragraph shall be conducted in this state. The commission shall select the independent, qualified asset sale specialist who will conduct the asset sale process. PSNH shall be allowed to comment prior to the selection of any such specialist;

(14) The commission shall administer any competitive bid process for transition service or default service required by the settlement;

(15) Subject to the approval of the Federal Energy Regulatory Commission (FERC), in the event that the commission either rejects a proposed sale of Seabrook, or fails to act on such application within 180 days after North Atlantic Energy Corporation's (NAEC's) proposed sale application is filed with the commission, and the failure of the sale is through no fault of Northeast Utilities (NU) or PSNH, NAEC's return on equity shall be increased from 7 percent to 150 basis points more than the average 10-year Treasury bond yield for the preceding 6 months, but not less than 7 percent nor more than 11 percent, and then readjusted accordingly at the end of every 6 month period; and

(16) No finance order shall be final or effective until PSNH and NU have agreed to dismiss with prejudice on competition day PSNH's and NU's claims and causes of action in all pending litigation associated with the implementation of RSA 374-F, including civil action No. 97-97-JD (New Hampshire) / 97-121 L (Rhode Island).

V. Any finance order that expressly states each and every one of the conditions as set forth in RSA 369-B:3, IV, and finds that the finance order is consistent with all of these conditions, shall be deemed to satisfy the conditions and requirements of RSA 369-B:3, IV. If such finance order so satisfies the conditions and requirements of RSA 369-B:3, IV and satisfies the other requirements of this chapter, then such finance order shall be deemed to be authorized by, and issued pursuant to, this chapter.

Source. 2000, 249:2, eff. June 12, 2000. 2001, 29:10, 11, eff. May 22, 2001. 2002, 268:3, eff. May 18, 2002. 2003, 21:2, 3, eff. April 23, 2003.

Section 369-B:3-a

369-B:3-a Divestiture of PSNH Generation Assets. – The sale of PSNH fossil and hydro generation assets shall not take place before April 30, 2006. Notwithstanding RSA 374:30, subsequent to April 30, 2006, PSNH may divest its generation assets if the commission finds that it is in the economic interest of retail customers of PSNH to do so, and provides for the cost recovery of such divestiture. Prior to any divestiture of its generation assets, PSNH may modify or retire such generation assets if the commission finds that it is in the public interest of retail customers of PSNH to do so, and provides for the cost recovery of such modification or retirement.

Source. 2003, 21:4, eff. April 23, 2003.

Section 369-B:4

369-B:4 Establishment of RRB Charge to Recover RRB Costs. –

I. A finance order shall establish and place into effect one or more RRB charges that the commission shall determine to be just and reasonable, including any provisions for subsequent adjustments thereto, that shall provide for the collection of revenues from retail customers of electric utilities sufficient to recover all RRB costs approved by the commission in the finance order, including, without limitation, the payment of principal, premium, if any, interest, credit enhancement, and all other fees, costs, and charges in respect to rate reduction bonds. Such RRB charge or RRB charges shall be set forth in a schedule or schedules filed with the commission in such form as may be determined by the commission, but the filing of such schedule shall not affect or be a condition to the validity of the RRB charge.

II. The commission shall set the RRB charge, per kilowatt-hour of electricity for delivery of retail electric service, in an amount necessary and sufficient to provide for the full recovery of principal, interest, and credit enhancement on the rate reduction bonds, in accordance with the amortization schedule for such bonds determined at the time of offering, as well as all other fees, costs, and charges in respect to the rate reduction bonds, based upon the electric utility's reasonable assumptions, including sales forecasts.

III. Notwithstanding any provision of RSA 369-B:3, the commission shall approve such adjustments to the RRB charge authorized to be imposed and collected pursuant to a finance order as may be necessary to ensure timely recovery of all RRB costs that are the subject of such finance order, including, without limitation, the costs of capital associated with the provision, recovery, financing, or refinancing thereof and the costs of issuing, servicing, and retiring the rate reduction bonds contemplated by such finance order. Such RRB charge shall be adjusted periodically, but not less frequently than annually nor more frequently than monthly, in accordance with the finance order. The commission shall provide in a finance order for a procedure for the timely approval by the commission of periodic adjustments to the RRB charge that is the subject of such finance order. The commission shall approve such adjustments within 60 days of the filing of such adjustment, or within such shorter period as the finance order may designate. These adjustments shall generally serve to reconcile the actual RRB charges collected with the RRB charges expected to have been collected during the relevant prior period in a manner such that the adjusted RRB charge will be sufficient to provide for scheduled principal, interest, credit enhancement, fees and other expenses associated with rate reduction bonds payable in the period during which such adjusted RRB charge will be billed. The electric utility shall include in such filing a report to the commission showing the

calculation of each such adjustment.

IV. All charges established in a finance order for an electric utility, including, without limitation, the non-bypassable RRB charge, shall be collected from each retail customer of such electric utility by such electric utility or servicer of the rate reduction bonds or other entity authorized in the finance order or otherwise approved by the commission. If a retail customer purchases or otherwise obtains retail electric service from any person other than the electric utility in whose service territory the retail customer is located, including, without limitation, any successor referred to in RSA 369-B:8, subject to commission approval, the servicer or such new electricity service provider or successor shall collect all such charges, including, without limitation, such RRB charge, from the retail customer by or on behalf of the first electric utility with revenues from such RRB charge remitted solely for the benefit and repayment of rate reduction bonds as a condition to the provision of retail electric service to such retail customer. Each finance order shall impose commercially reasonable terms on such electricity service provider or successor responsible for billing or collecting such charges, including, without limitation, such RRB charge, that are the subject of the finance order. Any retail customer that fails to pay any RRB charge shall be subject to disconnection of service to the same extent that such customer would, under applicable law and regulations, be subject to disconnection of service for failure to pay any other charge payable to an electric utility.

V. The RRB charge shall be charged to and collected from retail customers for such period as prescribed in the finance order. To the extent that the commission, when issuing a finance order, determines that special treatment on retail customers' bills is necessary or desirable to distinguish the RRB charge from other rates and charges in order to facilitate the successful issuance and sale of rate reduction bonds, it may so provide as part of such finance order. A finance order shall specify how amounts collected from a retail customer shall be allocated between the RRB charge and other rates and charges.

VI. The commission shall establish charges for retail customers that purchase or otherwise obtain or are supplied back-up, maintenance, emergency or other delivery service provided to a retail customer by an electric utility. Such charges shall be just and reasonable, and shall not be designed in a manner that creates a charge similar to or has the same effect as an exit fee.

VII. Notwithstanding any statutory or regulatory language to the contrary, the commission shall not authorize or impose, nor shall any electric utility charge or assess, any exit fee, and nothing herein shall affect the rights as set forth in RSA 369-B:3, IV(b)(7). An exit fee is any rate or charge that is based in whole or in part on the amount of electric power and/or retail electric service a customer might have purchased from or through an electric utility but does not purchase due to conservation efforts, use of alternative non-electric energy sources, or the consumption of electricity by such customer from generation connected directly to such customer's electrical load with no intervening facilities of a regulated utility; provided, however, that an exit fee shall not include a just and reasonable capacity or demand charge for backup service as defined in RSA 369-B:4, VI.

VIII. In the event of the municipalization of a portion of an electric utility's service territory, the commission shall, in matters over which the Federal Energy Regulatory Commission does not have jurisdiction, or has jurisdiction but chooses to grant jurisdiction to the state, determine, to a just and reasonable extent, the consequential damages such as stranded investment in generation, storage, or supply arrangements resulting from the purchase of plant and property from the electric utility and RRB costs, and shall establish an appropriate recovery mechanism for such damages. Any such damages shall be established, and shall be allocated between the RRB charge and other rates and charges, in a just and reasonable manner.

IX. Any surplus RRB charge in excess of the amounts necessary to pay principal, premium, if any, interest, credit enhancement and all other fees, costs, and charges in respect to rate reduction bonds shall be remitted to the financing entity and shall be used to benefit retail customers unless this would result in a recharacterization of the tax, accounting, and other intended characteristics of the financing, including, but not limited to, the following intended characteristics:

- (a) Avoiding the recognition of debt on the electric utility's balance sheet for financial accounting and regulatory purposes;
- (b) Treating the rate reduction bonds as debt of the electric utility or its affiliates for federal income tax purposes;
- (c) Treating the transfer of the RRB property by the electric utility as a true sale for bankruptcy purposes; or
- (d) Avoiding any adverse impact of the financing on the credit rating of the rate reduction bonds or the electric utility.

Source. 2000, 249:2, eff. June 12, 2000.

Section 369-B:5

369-B:5 Issuance of Rate Reduction Bonds. –

I. An electric utility or financing entity may, from time to time, after approval by the commission in a finance order or orders, issue rate reduction bonds. The power and authority of such electric utility or financing entity to issue such bonds shall expire on December 31, 2002.

II. A finance order or finance orders shall direct that the proceeds from the issuance of rate reduction bonds shall be applied only for such purposes approved in such finance order and the financing entity and the electric utility shall apply such proceeds only for such purposes. Rate reduction bonds may qualify for tax-exempt status to the full extent of state and federal law.

III. Notwithstanding any other provision of law, RSA 374:30 and RSA 369 shall not apply to any sale, assignment, or other transfer or grant of a security interest in any RRB property or the issuance of rate reduction bonds under this chapter.

IV. Rate reduction bonds issued pursuant to finance orders adopted by the commission under the provisions of this chapter shall not constitute a debt or liability of the state or of any political subdivision thereof, other than any financing entity established by or on behalf of the state, and shall not constitute a pledge of the full faith and credit of the state or any of its political subdivisions, other than any financing entity established by or on behalf of the state, but shall be payable solely from the funds provided therefor pursuant to the provisions of this chapter and shall not constitute an indebtedness of the state or constitute net tax supported debt of the state within the meaning of any constitutional or statutory debt limitations or restrictions and, accordingly, shall not be subject to any statutory limitations on the indebtedness of the state or the net tax supported debt of the state and shall not be included in computing the aggregate indebtedness of the state or the net tax supported debt of the state in respect to and to the extent of any such limitations. All rate reduction bonds shall contain on the face thereof a statement to the following effect: "Neither the full faith and credit nor the taxing power of the State of New Hampshire or any political subdivision thereof is pledged to the payment of the principal of, or interest on, this bond." This paragraph shall in no way preclude bond guarantees or enhancements pursuant to this chapter nor shall it preclude the payment of compensation for any breach of the state's pledge contained in RSA 369-B:6, II or for any action or failure to act by the commission in contravention of RSA 369-B:3 or RSA 369-B:4.

V. The issuance of rate reduction bonds under this chapter shall not directly, indirectly, or contingently obligate the state or any political subdivision thereof to levy or to pledge any form of taxation therefor or to make any appropriation for their payment.

VI. The exercise of the powers granted by this chapter shall be in all respects for the benefit of the people of this state, for the increase of their commerce, welfare, and prosperity, and as the exercise of such powers shall constitute the performance of an essential public function, neither any electric utility, any affiliate of any electric utility, any financing entity, nor any collection or other agent of any of the foregoing shall be required to pay any taxes or assessments upon or in respect of any revenues or property received, acquired, transferred, or used by any electric utility, any affiliate of any electric utility, any financing entity, or any collection or other agent of any of the foregoing under the provisions of this chapter or upon or in respect of the income therefrom, and any rate reduction bonds shall be treated as notes or bonds of a political subdivision of the state for purposes of RSA 77.

VII. Rate reduction bonds are made and declared:

(a) Securities in which all public officers and public bodies of the state and its political subdivisions, all insurance companies, state banks and trust companies, national banking associations, savings banks, savings and loan associations, investment companies, executors, administrators, trustees and other fiduciaries and electric utility consumers may properly and legally invest funds, including capital in their control or belonging to them; and

(b) Securities which may properly and legally be deposited with and received by any state or municipal officer or any agency or political subdivision of the state for any purpose for which the deposit of bonds or obligations of the state is now or may be authorized.

VIII. Rate reduction bonds shall mature at such time or times approved by the commission in the finance order, but not more than 14 years after competition day.

IX. The state treasurer, or other state official designated by the state treasurer, shall have oversight over the

terms and conditions of rate reduction bond issuances, to assure that the electric utility exercises fiscal prudence and achieves the lowest overall cost for the rate reduction bonds.

X. Subject to the approval of the commission and the oversight of the state treasurer, or other state official designated by the state treasurer, rate reduction bonds issued and at any time outstanding may, if and to the extent permitted under the indenture or other agreement pursuant to which they are issued, be refunded by other rate reduction bonds.

XI. The state treasurer's oversight under RSA 369-B:5, IX and X shall not be governed by the provisions of RSA 541 or 541-A.

Source. 2000, 249:2, eff. June 12, 2000.

Section 369-B:6

369-B:6 Creation, Assignment, and Pledge of RRB Property. –

I. The RRB charge shall constitute RRB property when, and to the extent that, a finance order authorizing such RRB charge has become effective in accordance with this chapter, and the RRB property shall thereafter continuously exist as a current and irrevocable vested property right for all purposes with all of the rights and privileges of this chapter for the period and to the extent provided in the finance order, but in any event until the rate reduction bonds, including all principal, interest, premium, costs, and arrearages on such bonds, are paid in full. Prior to its sale or other transfer by the electric utility pursuant to this chapter, RRB property shall be a vested contract right of the electric utility, notwithstanding any contrary treatment thereof for accounting, tax, or other purpose. Upon application by an electric utility or a financing entity, or upon its own motion, the commission shall have authority to initiate such other proceedings, hold such other hearings, and take such other actions as may be necessary to implement, protect, and preserve the value of the finance order, the RRB charge specified therein, and the RRB property.

II. The state does hereby pledge, contract, and agree with the owners of RRB property and holders of and trustees for rate reduction bonds that neither the state, nor any of its agencies, including the commission, shall limit, alter, amend, reduce, or impair the RRB charge, RRB property, finance orders, and all rights thereunder or ownership thereof or security interest therein until the rate reduction bonds, including all principal, interest, premium, costs and arrearages thereon, are fully met and discharged, provided nothing contained in this paragraph shall preclude the limitation, alteration, amendment, reduction, or impairment if and when adequate provision shall be made by law for the protection of such owners, holders and trustees. The state does hereby acknowledge that such owners, holders and trustees may and will rely on this pledge, contract, and agreement and that any such limitation, alteration, amendment, reduction, or impairment without such adequate provision will irreparably harm such owners, holders and trustees. The state treasurer and the financing entity are each authorized to include this pledge, contract, agreement, and acknowledgment of the state in the documentation relating to the rate reduction bonds.

III. An electric utility may sell and assign all or portions of its interest in RRB property to an affiliate to the extent approved in the pertinent finance orders. An electric utility or its affiliate may sell or assign its interests to one or more financing entities that make that property the basis for issuance of rate reduction bonds to the extent approved in the pertinent finance orders. An electric utility, its affiliate, or a financing entity may pledge RRB property as collateral, directly or indirectly, for rate reduction bonds to the extent approved in the pertinent finance orders providing for a security interest in the RRB property, in the manner set forth in RSA 369-B:7. In addition, RRB property may be sold or assigned by:

(a) The financing entity or a trustee for the holders of rate reduction bonds in connection with the exercise of remedies upon a default; or

(b) Any person acquiring the RRB property after a sale or assignment pursuant to this paragraph.

IV. To the extent that any interest in RRB property is so sold or assigned, or is so pledged as collateral, the commission shall require the electric utility to contract with the financing entity that it will continue to operate its system to provide service to its retail customers, will collect amounts in respect of the RRB charge for the benefit and account of the financing entity, and will account for and remit these amounts to or for the account of the financing entity. Contracting with the financing entity in accordance with that authorization shall not impair or negate the characterization of the sale, assignment, or pledge as an absolute transfer, a true sale, or security

interest, as applicable, and shall not cause the electric utility to be subject to the provisions of RSA 358-C. Contracts or other arrangements entered into between an electric utility and a financing entity shall not be subject to the provisions of RSA 366. Neither a finance entity nor any other person that is an assignee or pledgee of RRB property shall for any purpose be considered to be an electric utility or a person providing electric service solely by virtue of the transactions described in this chapter.

V. A transfer of RRB property by an electric utility to an affiliate or to a financing entity, or by an affiliate of an electric utility or a financing entity to another financing entity, that the parties have expressly stated in the governing documentation to be a sale or other absolute transfer, in a transaction approved in a finance order and made in connection with the issuance of rate reduction bonds shall be treated as an absolute transfer of all of the transferor's right, title, and interest, as in a true sale, and not as a pledge or other financing, of the RRB property, in each case notwithstanding any contrary treatment of such transfer for accounting, tax, or other purposes. According to the holders of rate reduction bonds a preferred right to revenues of the electric utility or the provision by the electric utility of other credit enhancement with respect to rate reduction bonds shall not impair or negate the characterization of any transfer as a true sale, in each case notwithstanding any contrary treatment of such transfer for accounting, tax, or other purposes. Any finance order shall remain in full force and effect notwithstanding any bankruptcy, reorganization, or other insolvency proceeding with respect to the debtor, pledgor, or transferor of RRB property.

VI. A transfer of RRB property shall be deemed perfected as against third persons and shall vest title to the RRB property in the transferee when both of the following have taken place:

(a) A finance order authorizing the RRB charge included in the RRB property has become effective in accordance with this chapter.

(b) An assignment of the RRB property in writing has been executed and delivered to the transferee.

VII. As between bona fide assignees of the same right for value without notice, the assignee first filing financing statements in accordance with Article 9 of RSA 382-A naming the assignor of the RRB property as debtor and identifying the RRB property has priority. Any description of the RRB property shall be sufficient if it refers to the finance order creating the RRB property. A copy of the financing statements shall be filed by the assignee with the commission, and the commission may require the assignor or the assignee to make other filings with respect to the transfer in accordance with procedures it may establish, but the filing with the commission and such other filings shall not affect the perfection of the transfer.

VIII. The interest of an assignee or pledgee in RRB property and in the revenues and collections arising from such RRB property are not subject to setoff, counterclaim, surcharge, or defense by the electric utility or any other person or in connection with the bankruptcy of the electric utility or any other person.

Source. 2000, 249:2, eff. June 12, 2000.

Section 369-B:7

369-B:7 Security Interests in RRB Property. –

I. To the extent the provisions of this section conflict with Article 9 of RSA 382-A, this section shall apply.

II. A security interest in RRB property is valid, is enforceable against the pledgor and third parties, subject to the rights of any third parties holding security interests in the RRB property perfected in the manner described in this section, and attaches when all of the following have taken place:

(a) A finance order authorizing the RRB charge included in the RRB property has become effective in accordance with this chapter.

(b) Value has been given by the pledgees of the RRB property.

(c) The pledgor has signed a security agreement covering the RRB property.

III. A valid and enforceable security interest in RRB property is perfected when it has attached and when financing statements have been filed in accordance with Article 9 of RSA 382-A naming the pledgor of the RRB property as "debtor" and identifying the RRB property. Any description of the RRB property shall be sufficient if it refers to the finance order creating the RRB property. A copy of the financing statement shall be filed with the commission by the pledgor or transferor of the RRB property, and the commission may require the pledgor or transferor to make other filings with respect to the security interest in accordance with procedures it may establish, but the filing with the commission and such other filings shall not affect the perfection of the security

interest. A financing statement filed pursuant to this section is effective until a termination statement is filed.

IV. A perfected security interest in RRB property is a continuously perfected security interest in all revenues and proceeds arising with respect thereto, whether or not the revenues or proceeds have accrued. Conflicting security interests shall rank according to priority in time of perfection. RRB property shall constitute property for all purposes, including for contracts securing rate reduction bonds, whether or not the revenues and proceeds arising with respect thereto have accrued.

V. Subject to the terms of the security agreement covering the RRB property and the rights of any third parties holding security interests in the RRB property perfected in the manner described in this section, the validity and relative priority of a security interest created under this section are not defeated or adversely affected by the commingling of revenues and proceeds arising with respect to the RRB property with other funds of the electric utility that is the pledgor or transferor of the RRB property, or by any security interest in a deposit account of that electric utility into which the revenues and proceeds are deposited or in such revenues and proceeds themselves perfected under Article 9 of RSA 382-A or otherwise. Subject to the terms of the security agreement, the pledgees of the RRB property shall have a perfected security interest in all cash and deposit accounts of the electric utility in which revenues and proceeds arising with respect to the RRB property have been commingled with other funds, but the perfected security interest shall be limited to an amount not greater than the amount of the revenues and proceeds with respect to the RRB property received by the electric utility within 12 months before (1) any default under the security agreement or (2) the institution of insolvency proceedings by or against the electric utility, less payments from the revenues and proceeds to the pledgees during that 12-month period. Nothing in this paragraph shall exempt the debtor from the tracing requirements of federal bankruptcy law.

VI. If an event of default occurs under the security agreement covering the RRB property, the pledgees of the RRB property, subject to the terms of the security agreement, shall have all rights and remedies of a secured party upon default under Article 9 of RSA 382-A, and shall be entitled to conduct a secured party sale of the RRB property or otherwise enforce their security interest in the RRB property, subject to the rights of any third parties holding prior security interests in the RRB property perfected in the manner provided in this section. In addition, the commission may require, in the finance order creating the RRB property, that, in the event of default by the electric utility in payment of revenues and proceeds arising with respect to the RRB property, the commission, upon the application by the pledgees or transferees, including transferees under this section, of the RRB property, and without limiting any other remedies available to the pledgees or transferees by reason of the default, shall order the sequestration and payment to the pledgees or transferees of revenues and proceeds arising with respect to the RRB property. Any order shall remain in full force and effect notwithstanding any bankruptcy, reorganization, or other insolvency proceedings with respect to the debtor, pledgor, or transferor of the RRB property. Any surplus in revenues and proceeds in excess of amounts necessary to pay principal, premium, if any, interest, costs, and arrearages on the rate reduction bonds, and other costs arising under the security agreement, shall be remitted to the debtor or to the pledgor or transferor.

VII. RSA 382-A:9-204 and RSA 382-A:9-205 shall apply to a pledge of RRB property by an electric utility, an affiliate of an electric utility, or a financing entity.

VIII. This paragraph sets forth the terms by which a consensual security interest can be created and perfected in the RRB property. Unless otherwise ordered by the commission with respect to any series of rate reduction bonds on or prior to the issuance of the series, there shall exist a statutory lien as provided in this paragraph. Upon the effective date of the finance order, there shall exist a first priority lien on all RRB property then existing or thereafter arising pursuant to the terms of the finance order. This lien shall arise by operation of this paragraph automatically without any action on the part of the electric utility, any affiliate thereof, the financing entity, or any other person. This lien shall secure all obligations, then existing or subsequently arising, under the rate reduction bonds issued pursuant to the finance order to the holders of such rate reduction bonds, the trustee or representative for such holders, and any other entity specified in the finance order. The persons for whose benefit this lien is established shall, upon the occurrence of any defaults specified in the finance order, have all rights and remedies of a secured party upon default under Article 9 of RSA 382-A, and shall be entitled to conduct a secured party sale of the RRB property or otherwise enforce this statutory lien in the RRB property. This lien shall attach to the RRB property regardless of who shall own, or shall subsequently be determined to own, the RRB property including any electric utility, company, any affiliate thereof, the financing entity, or any other person. This lien shall be valid, perfected, and enforceable against the owner of the RRB property and all third parties upon the effective date of the finance order without any further public notice; provided, however, that any person may, but shall not be required to, file a financing statement in accordance with paragraph III of this

section. Financing statements so filed may be "protective filings" and shall not be evidence of the ownership of the RRB property. A perfected statutory lien in RRB property is a continuously perfected lien in all revenues and proceeds arising with respect thereto, whether or not the revenues or proceeds have accrued. Conflicting liens shall rank according to priority in time of perfection. In addition, the commission may require, in the finance order creating the RRB property, that, in the event of default by the electric utility in payment of revenues and proceeds arising with respect to the RRB property, the commission, upon the application by the beneficiaries of the statutory lien, and without limiting any other remedies available to the beneficiaries by reason of the default, shall order the sequestration and payment to the beneficiaries of revenues and proceeds arising with respect to the RRB property. Any order shall remain in full force and effect notwithstanding any bankruptcy, reorganization, or other insolvency proceedings with respect to the debtor, pledgor, or transferor of the RRB property. Any surplus in revenues and proceeds in excess of amounts necessary to pay principal, premium, if any, interest, costs, and arrearages on the rate reduction bonds, and other costs arising in connection with the documents governing the rate reduction bonds, shall be remitted to the debtor or to the pledgor or transferor.

Source. 2000, 249:2, eff. June 12, 2000.

Section 369-B:8

369-B:8 Successors to Electric Utilities. – Any successor to an electric utility, whether pursuant to any bankruptcy, reorganization, or other insolvency proceeding, or pursuant to any merger, sale, or transfer, by operation of law, or otherwise, shall perform and satisfy all obligations of the electric utility with respect to rate reduction bonds in the same manner and to the same extent as was required of the electric utility before such proceeding or transfer, including, without limitation, billing, collecting, and paying to the holders of the rate reduction bonds or their representatives or the applicable financing entity RRB charges and any other revenues arising with respect to the RRB property and seeking RRB charge adjustments, as necessary and permitted by a finance order, to recover all RRB costs designated in an applicable finance order or finance orders.

Source. 2000, 249:2, eff. June 12, 2000.

Section 369-B:9

369-B:9 Severability. – If any provision of this chapter, or the application thereof to any person or circumstance, is held invalid, such invalidity shall not affect other provisions or applications of this chapter, and to that end, the provisions of this chapter are declared to be severable. Each section of this chapter shall be severable from all other sections hereof and the nullification of any section of this chapter shall have no effect on the remaining sections of this chapter.

Source. 2000, 249:2, eff. June 12, 2000.

TITLE XXXIV PUBLIC UTILITIES

CHAPTER 365 COMPLAINTS TO, AND PROCEEDINGS BEFORE, THE COMMISSION

Proceedings Before the Commission

Section 365:19

365:19 Independent Investigation. – In any case in which the commission may hold a hearing it may, before or after such hearing, make such independent investigation as in its judgment the public good may require; provided, that, whenever such investigation shall disclose any facts which the commission shall intend to consider in making any decision or order, such facts shall be stated and made a part of the record, and any party whose rights may be affected shall be afforded a reasonable opportunity to be heard with reference thereto or in denial thereof.

Source. 1913, 145:6. PL 238:19. RL 287:19. 1951, 203:11 par. 19, eff. Sept. 1, 1951.

TITLE LV

PROCEEDINGS IN SPECIAL CASES

CHAPTER 541-A

ADMINISTRATIVE PROCEDURE ACT

Section 541-A:31

541-A:31 Availability of Adjudicative Proceeding; Contested Cases; Notice, Hearing and Record. –

I. An agency shall commence an adjudicative proceeding if a matter has reached a stage at which it is considered a contested case or, if the matter is one for which a provision of law requires a hearing only upon the request of a party, upon the request of a party.

II. An agency may commence an adjudicative proceeding at any time with respect to a matter within the agency's jurisdiction.

III. In a contested case, all parties shall be afforded an opportunity for an adjudicative proceeding after reasonable notice. The notice shall include:

(a) A statement of the time, place, and nature of the hearing.

(b) A statement of the legal authority under which the hearing is to be held.

(c) A reference to the particular sections of the statutes and rules involved.

(d) A short and plain statement of the issues involved. Upon request an agency shall, when possible, furnish a more detailed statement of the issues within a reasonable time.

(e) A statement that each party has the right to have an attorney present to represent the party at the party's expense.

(f) For proceedings before an agency responsible for occupational licensing as provided in paragraph VII-a, a statement that each party has the right to have the agency provide a certified shorthand court reporter at the party's expense and that any such request be submitted in writing at least 10 days prior to the proceeding.

IV. Opportunity shall be afforded all parties to respond and present evidence and argument on all issues involved.

V. (a) Unless precluded by law, informal disposition may be made of any contested case, at any time prior to the entry of a final decision or order, by stipulation, agreed settlement, consent order or default.

(b) In order to facilitate proceedings and encourage informal disposition, the presiding officer may, upon motion of any party, or upon the presiding officer's own motion, schedule one or more informal prehearing conferences prior to beginning formal proceedings. The presiding officer shall provide notice to all parties prior to holding any prehearing conference.

(c) Prehearing conferences may include, but are not limited to, consideration of any one or more of the following:

(1) Offers of settlement.

(2) Simplification of the issues.

(3) Stipulations or admissions as to issues of fact or proof, by consent of the parties.

(4) Limitations on the number of witnesses.

(5) Changes to standard procedures desired during the hearing, by consent of the parties.

(6) Consolidation of examination of witnesses by the parties.

(7) Any other matters which aid in the disposition of the proceeding.

(d) The presiding officer shall issue and serve upon all parties a prehearing order incorporating the matters determined at the prehearing conference.

VI. The record in a contested case shall include all of the following that are applicable in that case:

(a) Any prehearing order.

(b) All pleadings, motions, objections, and rulings.

(c) Evidence received or considered.

(d) A statement of matters officially noticed.

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(e) Proposed findings and exceptions.

(f) Any decision, opinion, or report by the officer presiding at the hearing.

(g) The tape recording or stenographic notes or symbols prepared for the presiding officer at the hearing, together with any transcript of all or part of the hearing considered before final disposition of the proceeding.

(h) Staff memoranda or data submitted to the presiding officer, except memoranda or data prepared and submitted by agency legal counsel or personal assistants and not inconsistent with RSA 541-A:36.

(i) Matters placed on the record after an ex parte communication.

VII. The entirety of all oral proceedings shall be recorded verbatim by the agency. Upon the request of any party or upon the agency's own initiative, such record shall be transcribed by the agency if the requesting party or agency shall pay all reasonable costs for such transcription. If a transcript is not provided within 60 days of a request by a person who is a respondent party in a disciplinary hearing before an agency responsible for occupational licensing, the proceeding shall be dismissed with prejudice. Any party may record an oral proceeding, have a transcription made at the party's expense, or both, but only the transcription made by the agency from its verbatim record shall be the official transcript of the proceeding.

VII-a. At the request of a party in any oral proceeding involving disciplinary action before an agency responsible for occupational licensing except for an emergency action under RSA 541-A:30, III, the record of the proceeding shall be made by a certified shorthand court reporter provided by the agency at the requesting party's expense. A request shall be submitted to the agency in writing at least 10 days prior to the day of the proceeding.

VIII. Findings of fact shall be based exclusively on the evidence and on matters officially noticed in accordance with RSA 541-A:33, V.

Source. 1994, 412:1. 1999, 331:2-4. 2000, 288:20, eff. July 1, 2000.

August 22, 2008

Mr. Robert A. Bersak, Esq.
Assistant General Counsel
Public Service Company of New Hampshire
P.O. Box 330
Manchester, NH 03105

Re: DE 08-103, Public Service Company of New Hampshire
Merrimack Station Scrubber Project
Request for Information

Dear Mr. Bersak:

In the quarterly earnings report (10-Q) filed by Public Service Company of New Hampshire's (PSNH) parent company Northeast Utilities (NU) with the Securities and Exchange Commission on August 7, 2008, NU reported that it was moving forward with a project to install a wet flue gas desulphurization system, commonly referred to as "scrubber" technology, at Merrimack Station in Bow for the purpose of achieving reductions in mercury emissions as required by RSA 125-O:11 through 18. In its 10-Q, NU identified an estimated project cost of \$457 million, which represents approximately an 80 percent increase over the original estimate of \$250 million.

The Commission has determined pursuant to RSA 365:5 and 365:19 to inquire into: the status of PSNH's efforts to install scrubber technology; the costs of such technology; and the effect installation would have on energy service rates (previously referred to as the default service charge) for PSNH customers. Accordingly, PSNH is directed to file, by September 12, 2008, a comprehensive status report on its installation plans, a detailed cost estimate for the project, an analysis of the anticipated effect of the project on energy service rates, and an analysis of the effect on energy service rates if Merrimack Station were not in the mix of fossil and hydro facilities operated by PSNH.

RSA 125-O:11, enacted in 2006, requires PSNH to install new scrubber technology at Merrimack Station by July 1, 2013 that will achieve at least an 80 percent reduction in mercury emissions. In addition, subsection VI provides: "The installation of such technology is in the public interest of the citizens of New Hampshire

August 22, 2008

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and the customers of affected sources.” RSA 369-B:3-a, enacted in 2003, authorizes PSNH to modify its generation assets only if the Commission first finds “that it is in the public interest of retail customers of PSNH to do so.” In light of a potential conflict between these statutory provisions, PSNH is directed to file, also by September 12, 2008, a memorandum of law addressing the nature and extent of the Commission’s authority relative to the Merrimack Station scrubber project.

Docket No. DE 08-103, Investigation of PSNH’s Installation of Scrubber Technology, has been assigned as the repository for the materials to be filed by PSNH. To the extent PSNH contends any portions of its filings are confidential, it shall file an appropriate motion. PSNH shall provide a copy of its filings to the Office of Consumer Advocate, who may also file a memorandum of law by September 12, 2008. The Commission will consider further actions after it has the opportunity to review the filings.

Sincerely,

Debra A. Howland
Executive Director

cc: Office of Consumer Advocate



**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.

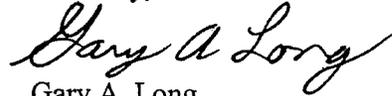
Merrimack Station’s continued operation ensures that New England has continued fuel diversity and energy security. The New England region is already highly reliant on natural gas, and subject to its high price volatility and the vagaries of the natural gas market, as a fuel source for the power generation 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,



Gary A. Long
President and Chief Operating Officer

THE STATE OF NEW HAMPSHIRE
before the
PUBLIC UTILITIES COMMISSION

Public Service Company of New Hampshire
Merrimack Station Scrubber Project
Request for Information

Docket No. DE 08-103

Report

In its Secretarial Letter dated August 22, 2008 in this docket, the Commission notified Public Service Company of New Hampshire (PSNH) that it was conducting an inquiry into the status of PSNH's efforts to install a wet flue gas desulphurization system (scrubber technology) at Merrimack Station in Bow. Installation of the scrubber (the "Clean Air Project") is mandated by RSA 125-O:11 through 18 (the "Scrubber Law") to achieve reductions in mercury emissions. The Commission directed PSNH to file, by September 12, 2008:

- I. a comprehensive status report on its installation plans;
- II. a detailed cost estimate for the project;
- III. an analysis of the anticipated effect of the project on energy service rates; and
- IV. an analysis of the effect on energy service rates if Merrimack Station were not in the mix of fossil and hydro facilities operated by PSNH.

This report provides the information concerning PSNH's scrubber installation project (the Clean Air Project) requested by the Commission's secretarial letter.

I. SCRUBBER STATUS

PSNH is moving rapidly forward with the Clean Air Project to comply with the Scrubber Law's mandate to achieve significant reductions in mercury emissions at the coal-burning electric power plants in the state as soon as possible. RSA 125-O:11, I. Unless further delayed, PSNH will meet the statutory installation deadline of July 1, 2013, and is striving to have the scrubber operational sooner than that deadline. The scope of the Clean Air Project will encompass planning and design; schedule and cost development; oversight of multiple competitive bidding processes for engineering; equipment and system procurement, selection of contractors, contract negotiations and execution; sequential construction management of the various project components and interfaces, followed by the integration of those components into a functioning system; and operational start-up activities. All work on the Clean Air Project will be performed with safety as a high priority. To date, PSNH has spent approximately \$10 million on the Clean Air Project.

A. Activities Performed during 2006

1. Merrimack Station began investigating operational changes at the facility that would provide the necessary flexibility in the design and engineering of a scrubber system. The catalyst replacement program on the previously installed selective catalytic reduction systems was reviewed and updated to accommodate operating requirements of a new scrubber and potentially improve the overall performance of the equipment.
2. Merrimack Station revised, tested and modified its ash handling operations and capabilities to provide necessary options for ash management in order to maximize unit operations when a new scrubber is installed.
3. Initial engineering was completed by Sargent and Lundy ("S&L") based upon information provided in 2005. S&L also evaluated a number of equipment options integral to the scrubber project and completed a layout of the project. Budgetary quotes and lead times were solicited from major scrubber vendors, also during 2005.
4. General specifications for the scrubber island, material handling system and the chimney were provided to PSNH by S&L to further develop project requirements. To complement this preliminary engineering work, site visits to the other scrubber installations were completed by PSNH/Merrimack Station personnel.
5. Preliminary work in support of the temporary air permit application was completed including emissions netting calculations and suggested modeling protocol.
6. Water quality testing was completed to define and identify appropriate sources for make-up water to the scrubber system.
7. Electrical work was reviewed with PSNH transmission and distribution divisions to outline the power requirements for the new scrubber system. A two phase approach was defined. Plans were made to relocate and upgrade an existing, old construction yard in order for the land to be used for construction power for the scrubber system. A new substation will be installed to power the scrubber operations.
8. Also in preparation for the scrubber installation, an unused oil tank was removed from the north side of the plant. This space will eventually house portions of the material handling system required by the scrubber project.
9. A study of the Merrimack property's south yard was performed to ensure an adequate layout area for the necessary equipment and building surrounding the scrubber. A number of contractor facilities in the south end of the plant, as well as the existing training facility, were identified for relocation.
10. A portion of the southern-most yard was cleared to make room for a new warehouse building. Although a separate effort from construction of the scrubber project itself, it

was necessary to complete this work prior to the extensive construction and labor effort that will be underway during the construction of the scrubber islands. Preliminary engineering, design, surveying and permitting for this new warehouse were completed.

11. A number of appropriate purchasing and procurement efforts were completed including contract options and strategy analysis and vendor lists for scrubber manufacturers and architect/engineers.
12. Engineering efforts included review of the latest equipment options, equipment integration capabilities, and mercury capture capabilities.
13. Also initial investigation into gypsum disposal and sale opportunities was pursued with various wallboard manufacturers.

B. Activities Performed during 2007

1. Merrimack Station continued operational changes at the facility that would provide the necessary flexibility to accommodate the design and engineering of a scrubber system. The station worked to modify boiler combustion temperatures. Tube shields were removed from the boiler reheater to increase heat transfer and improve steam temperatures.
2. The station's south yard was cleared for the new warehouse on schedule. This new warehouse will initially house displaced inventory from existing warehouse buildings. The building permit application was submitted on May 17, 2007. Preliminary design of the building was completed.
3. PSNH went out to bid for the Program Manager for the Clean Air Project on May 15, 2007. URS Washington Division ("URS") was hired in October 2007 following lengthy contract negotiations.
4. PSNH submitted a Temporary Air Permit application for the Clean Air Project with NHDES on June 6, 2007. An emissions netting calculation and determination of a stack height consistent with good engineering practice ("GEP") were required information to support the Temporary Air Permit application submittal. Necessary air dispersion modeling services were contracted for and have begun.
5. The first legislative update, as required annually by RSA 125-O:13, IX was completed on June 26, 2007. PSNH is required to report on the progress, status, and cost of complying with the provisions of the scrubber law to the legislative oversight committee on electric utility restructuring, and the chairpersons of the house science, technology and energy committee and the senate energy and economic development committee,. A brief summary of that first update follows:

- Engineering
 - i. Specifications developed for key components
 - ii. Possible site plan layouts developed
 - iii. Equipment options identified
 - iv. Vendor lists and contacts established
 - v. Industry impact of high number of scrubber installations analyzed
- Commercial and Purchasing
 - i. Contract strategy determined and approved
 - ii. Program Manager specification written
 - iii. Program Manager out to bid
- Permits and Approvals
 - i. Temporary Air Permit Application submitted to NHDES-ARD June 7, 2007
 - ii. Town of Bow presentations and submittals underway
 - iii. Company financing approvals initiated
- Site work
 - i. Existing oil tank removal completed
 - ii. Site surveys completed
 - iii. South Yard studies completed

C. Activities Performed during 2008 to date

1. Construction of the major components of the Clean Air Project has been broken down into the engineering, procurement, and construction of four major work islands which include the scrubber, chimney, waste water treatment facility, and material handling system. Construction must occur on a sequential basis. Of these islands, the chimney and scrubber require completion first for safety reasons given the physical orientation of the equipment and constraints of the site. Following foundation work, the chimney “shell” construction must precede all work because of the necessity of preserving a “drop zone” or area around the chimney for evident safety reasons. As a result of these sequential construction requirements, both the scrubber island and chimney specifications were prioritized and sent out to bid first, vendor bid proposals were received, bid proposals were reviewed to identify the lowest evaluated bidder and negotiations with lowest evaluated bidders were undertaken. The negotiations are in final stages on both contracts and the contracts were expected to be executed this week; however, as a result of the initiation of this inquiry, such contracts must await the Commission’s action in this inquiry. The material handling system and waste water treatment system followed with specifications sent out to bid, bid proposals received and evaluated, and negotiations well under way. Contracts will be finalized in short order and will be ready to execute in the near-term.
2. A second annual legislative update was completed on June 18, 2008. The status of the scrubber installation and mercury reductions was reported on to the legislative oversight committee on electric utility restructuring, and the chairpersons of the house science, technology and energy committee and the senate energy and economic development committee. A summary of that update follows:

- Engineering
 - i. Project's components
 - ii. Specifications developed for 4 key components
 - Commercial and Purchasing
 - i. Program Manager hired Sept 2007
 - ii. Scrubber Island and Chimney proposals are in negotiations
 - iii. Vendor Proposals requested and received for Wastewater Treatment Facility and Material Handling System
 - Review, Permits and Approvals
 - i. NHDES – May 12 presentation
 - ii. Temporary Permit expected October 2008
 - iii. Town of Bow –Local permitting
 - iv. Regional Planning Commission
 - Site work
 - i. Existing oil tank removed
 - ii. Site surveys and studies completed
 - iii. Warehouse construction underway
 - iv. On-site engineering facilities completed
 - Schedule and Costs
 - i. Tie-ins: MK#1 Fall 2012, MK#2 Spring 2013
 - ii. Project costs will be updated with review of major equipment bids
3. It was reiterated at this update that PSNH was focused on expediting the schedule; and with two major equipment islands in negotiations, it would soon be known to what extent the critical path of this project could be potentially shortened. These negotiations would also provide updated costs associated with a new timeline.
 4. As referenced earlier, negotiations with the scrubber island and chimney are now in their final phase. Recently completed boiler implosion, burner management and electrical supply studies are being reviewed. Multiple meetings have been attended in the Town of Bow focusing on local permitting requirements and also addressing any Regional Impact considerations. With that, public outreach and education meetings have been conducted and/or scheduled with a variety of organizations, such as the Southern New Hampshire Planning Commission, the Town of Pembroke, Town of Hooksett, etc.
 5. Finally, air modeling is being completed with current engineering and equipment design information and proposed site orientation. Drafting of the Temporary Air Permit continues by the New Hampshire Department of Environmental Services (NHDES) Air Division.

D. Schedule Status

1. As the project has moved forward steadily, PSNH has obtained more detailed information from major equipment and system suppliers, and has adjusted the schedule accordingly. The current optimized schedule shows that completion of the Clean Air Project in 2012 is

possible if there are no additional delays. PSNH's efforts are now focused on an early completion, as required by RSA 125-O:11, I. The early completion date is attributable to PSNH's diligence in complying with the Scrubber Law's mandates as rapidly as reasonably possible. Early completion will be beneficial to customers because AFUDC will be reduced, customers will benefit from early reductions credits provided by the Scrubber Law's Economic Performance Incentives at RSA 125-O:16, and, most importantly, mercury and sulfur oxide emissions will be reduced. In addition, by finalizing fixed price contracts and locking in prices, additional escalation of commodities can be avoided to some extent.

2. An early completion date is predicated on successful completion of a number of critical activities on a timely basis. These activities include obtaining permits to proceed with construction in the Fall of 2008 from the Town of Bow, and the receipt of a Temporary Air Permit from the New Hampshire Department of Environmental Services in the Fall of 2008. Moreover, procurement of engineering services and equipment must proceed on an aggressive schedule. Even a short delay at this time could trigger a six to eight month delay in completion of the project because foundation construction work must commence in the Fall of 2009. If foundation construction work is not completed in the Fall of 2009, the work will have to be delayed until the Spring of 2010 because it cannot be performed during winter months. This illustrates the valid concern that even a brief delay has the potential for creating a domino effect on project schedule with far more than a day-for-day delay.
3. The schedule is aggressive and has only a small tolerance for unpredictable delays due to inclement weather, equipment delivery problems, resolving engineering or design problems, or start-up and testing problems. Consequently, any delays caused by regulatory actions or other unanticipated events could jeopardize PSNH's ability to adhere to the schedule. Any such delay would increase the cost of the project.

E. Engineering Status

1. URS has overall responsibility to develop the cost and schedule, subject to PSNH's review and approval.
2. The initial estimated cost of the project was based on a Sargent & Lundy estimate performed in 2005. There have been significant increases in the cost of raw materials, steel, labor, and energy, since this estimate was made, as noted by the *Wall Street Journal* in a May 27, 2008 article entitled "Costs to Build Power Plants Pressure Rates" (Atch 1) and echoed by the FERC's Office of Enforcement's report to the FERC Commissioners on Increasing Costs in Electric Markets, presented on June 19, 2008 (Atch 2). URS has more current information and experience with this type of work, and they developed a revised estimated project cost based on their experience with such projects and on bids received from the four major system vendors (Scrubber, Stack, Material Handling, and Waste Water Treatment Islands).

3. Approximately 60% to 70% percent of the revised project cost is now based on firm contracts or firm bids PSNH has received. Only small system and interconnection field systems (electrical, ductwork, piping, yard work, etc.) have yet to be finalized by bids. If bids in hand are not acted on in a timely manner, such delay in execution of contracts can and will result in a delay in project completion and higher costs.
4. URS has 30 engineers currently working on the project in the following areas:
 - a. Electrical engineering
 - b. Civil engineering
 - c. Structural engineering
 - d. Controls
 - e. Fire Protection
 - f. Estimators
 - g. Schedulers
 - h. Draftsmen.
5. URS's efforts are approaching peak workload. This is a critical time in their efforts and any upset will create risk of delay and added cost.
6. Current work activities include site preparation, planning, and design. Once the shovel is in the ground, construction activities will go on for approximately four years. Because there will be more than 300 people working on the project at peak periods, the work must be carefully planned and performed. Construction will be performed by union craft labor, and an organized labor National Maintenance Agreement has been executed to ensure availability of workers and eliminate the potential for labor disputes as well as to prioritize safety on the job.
7. Parts lay-down and storage areas must be developed, site trench layout for electrical and piping systems need to be designed, and contractor parking and access paths need to be built.

F. Current Procurement and Construction Activities

1. PSNH has been actively engaged in negotiating contracts for various aspects of the project. PSNH has completed bid evaluations for the waste water treatment system and material handling system and those contracts are under negotiation. Bidding is currently in progress for items like the construction power electrical switching panel, booster fans and motors, and a new electrical substation.
2. Negotiations are about to be finalized on the scrubber and chimney. However, as noted in the Motion to Accelerate Schedule filed with the Commission on August 25th, PSNH and its corporate parent, Northeast Utilities, cannot continue to commit additional dollars to the scrubber project until the Commission determines its actions in this inquiry. PSNH will initiate discussions with various bidders and contractors to seek ways to continue to allow limited critical path work to proceed, if possible. However, as stated above,

escalating costs for global commodities such as steel and cabling make it likely that any delay in the receipt of Commission action will increase the cost of the project.

3. PSNH has also been designing and procuring equipment for the two substations that will be constructed to support the project. One substation is replacing an existing substation and will eventually be used for construction and a second larger substation will be needed to provide power to the scrubber once it is operational.
4. Site drawings have been developed to show new gates, new access roads, the construction guard house, office trailer locations, new parts lay-down and storage locations, security, and first aid locations. Work is progressing on soil borings to support foundation design, site surveys are being conducted for general equipment locations, and extensive underground surveying is being performed to locate all buried items.
5. Other current activities include developing specifications for booster fans and duct work, designing yard fire protection systems, conducting noise studies, and performing electrical usage studies. Myriad other tasks are also currently being performed in order to successfully complete the project.

G. Permitting Activities

1. The permitting activities began with submittal of the Temporary Air Permit application submitted to NHDES on June 7, 2007. NHDES has indicated that it will facilitate the permitting process however possible and has offered to provide a staff liaison to assist.
2. Other permitting activities have occurred over the last six months and are ongoing. Most notably, PSNH must receive approval from the Town of Bow. PSNH currently expects to receive the necessary approvals within the next few months.

II. PROJECT COST ESTIMATE

A. PSNH, in consultation with URS, has developed a revised project cost estimate of \$457 million. This cost equates to approximately \$830 per kW for all of the "affected sources" subject to the emissions limitations of the Scrubber Law (RSA 125-O:12, I) or \$1,054 per kW installed for Merrimack Station alone. This estimate includes the cost of the project, project management costs, AFUDC, indirect costs, and contingency. Confidential Attachment 3 hereto provides a detailed breakdown of project costs.

B. The current project cost estimate is in-line with recently published information on other multiple unit scrubber installations occurring elsewhere in the country. SNL Financial reported in their July 8, 2008 edition that the Wisconsin PSC had given verbal authorization for Wisconsin Energy Corp to proceed with its plans to install Scrubber and Selective Catalytic Reduction technologies to its Oak Creek units 5-8, a total of 525 MW's of existing Coal fired generating capacity at a cost of \$774 Million. While this cost includes the addition of two emissions reduction technologies, the installed cost equates to \$1,474 per kW at Oak Creek.

III. EFFECT OF CLEAN AIR PROJECT ON ENERGY SERVICE RATES

A. PSNH has assured the cost of energy produced by Merrimack Station will remain lower cost for customers than reasonable potential alternatives, even when the costs of the Clean Air Project are included. An analysis consisting of a detailed net present value of revenue requirements including capital and operating costs over the expected 15 year depreciation life of the scrubber demonstrates the continued economics of installing the scrubber provides this assurance. The spreadsheets which contain this analysis are included as Attachment 4 to this filing.

B. The primary assumptions used as inputs to the revenue requirements analysis include:

Capital cost: \$457M
Capital structure: 47.23% Equity, 52.77% Debt
Assumed Return on Equity: 9.81% (PSNH's current allowed ROE on generation)
In-Service Date: July 1, 2012
Coal cost: \$4.82 per Million BTU escalated at 2.5% per year for the period of the analysis
RGGI or equivalent CO2 allowance cost: \$7 per ton escalated at 2.5% per year for the period of the analysis

Utilizing these inputs produced the following summary results:
First year bus bar cost: \$94.55/MWh
Levelized (15 year) bus bar cost: \$99.28/MWh

C. Using the 2012 - 2027 average bus bar cost, the effect that the Clean Air Project will have on energy service rates is estimated to be approximately one-third of a cent per kWh (1/3¢/kWh). In the first year of operation, the year with the highest cost impact due to the highest value of undepreciated plant, absent any rate-smoothing initiatives, the impact on energy service rates is estimated to be approximately one-half cent per kWh (1/2¢/kWh).

D. Sensitivity analyses were conducted to test the impact of changes to each of the key assumptions (capital cost, coal cost and equivalent CO2 allowance cost) on the overall bus bar cost of Merrimack Station. These sensitivity analyses indicated the economics of the project are most sensitive to variations in the future price of coal, and far less sensitive to variations in the capital cost or equivalent CO2 allowance cost.

IV. EFFECT ON ENERGY SERVICE RATES IF MERRIMACK STATION IS RETIRED

A. The Commission's Secretarial Letter requires "an analysis of the effect on energy service rates if Merrimack Station were not in the mix of fossil and hydro facilities operated by PSNH." Three alternatives were chosen for this analysis. These comparison cases included analyses over the time frame of 2012 through 2027 of the following options:

1. Purchase of energy and capacity to replace the equivalent of Merrimack Station through a "Cost of Service" contract with new base load coal fired generating station;
2. Purchase of energy and capacity to replace the equivalent of Merrimack Station through a "Cost of Service" contract with a new combined cycle natural gas fired generating station; and
3. Purchase of energy and capacity to replace the equivalent of Merrimack Station through market purchases.

B. The 2012 through 2027 analysis period was chosen to coincide with the anticipated 15 year depreciable life of the scrubber, as defined in the base case. Cost of service style contracts, though not routinely in place in ISO-New England at this time, provided a presumed floor for total operating costs for a new coal or natural gas fired unit, employing a presumed "regulated return" and debt/equity ratio consistent with the PSNH values used in the base case, of operating with the scrubber.

C. PSNH undertook a data review of energy trade press and publications to determine current estimates of newly proposed coal and natural gas combined cycle generating stations.

1. For recently proposed coal plants, PSNH found references to the Virginia City Hybrid facility (Attachment 5). This is a 585 MW fluidized bed facility with a currently reported capital cost of \$1.8 billion. A net present value of revenue requirements model was created that employed this capital cost, the PSNH capital structure and anticipated ROE, and for the sake of consistency, coal price and equivalent CO2 allowance cost assumptions consistent with those used in the scrubber analysis. FERC has estimated significantly higher costs for construction of new coal generation, as set forth in Attachment 2.
2. For recently proposed combined cycle natural gas plants, PSNH found references to the Middletown Kleen plant, a 620 MW plant with a currently reported financing of \$985 Million (Attachment 6). This cost is consistent with the FERC estimated cost of new generation contained in Attachment 2.

D. For future market conditions, PSNH examined the forward market for natural gas delivered to New England and applied a "heat rate" factor to translate the raw delivered fuel cost to electrical energy. To the energy cost derived from these calculations, an adder was applied for ISO-NE capacity value, which would be required to replace the lost capacity value existing with the operation of Merrimack Station.

E. In the market purchase and combined cycle natural gas scenarios, a year 2012 price of \$11 per MMBtu was used as the first year price of natural gas. This value was escalated at a rate 2.5% per year for future years of the analysis.

F. The results of these analyses indicated that the new coal and new combined cycle natural gas plants would have bus bar costs of about \$135 per MWhr. For the market purchase alternative the sum of the energy and capacity costs resulted in a total cost per MWhr value of \$107.10. To this amount, PSNH calculated and added a recovery of the estimated \$63 Million of stranded assets (undepreciated plant and inventories) that would exist at Merrimack Station over a period of five years (as required by RSA 369-B:3-a). The overall cost of a market purchase plus retirement scenario produced a levelized bus bar cost of \$107.83/MWhr, which is nearly 15% higher than the cost calculated to operate Merrimack Station in the first year after completion of the Clean Air Project.

G. From these results, PSNH has computed that the average net effect on energy service rates if Merrimack Station is retired and replaced by market purchases would be 0.73 cents/kWh of additional costs to customers over the period of 2012 through 2027.

H. Comparison and sensitivity analyses were conducted using the scrubber and market purchase plus retirement scenarios. Under the base case assumptions the scrubber scenario produced a nominal benefit to customers of \$583 Million; \$132 Million benefit on a net present value basis, over the depreciable life of the scrubber. Additional net present value benefit of \$34.2 Million is attributable to customers associated with the scrubber, as the charges for stranded assets are avoided in the scenario where the scrubber is installed and the station continues to operate.

I. As a result of these analyses, PSNH has concluded that installation of the scrubber, and continued operation of Merrimack Station is the best economic alternative for the benefit of its customers.

CONCLUSION

PSNH has historically provided Clean Air Project status reports to the Legislature and the committees having oversight responsibilities for this project, NHDES, Office of Consumer Advocate, and this Commission; we continue to be ready and willing to meet with the Commission Staff and OCA to discuss the Clean Air Project whenever requested.

PSNH urges the Commission to act promptly in this docket so that the project work can resume without further delay. PSNH is at a critical juncture in the project since some contract work is on hold, while other contracts are not being executed pending the outcome of the Commission's inquiry. Any delay to the project will increase its cost and therefore result in higher costs to customers once the project is in service.

Attachment 1

The Wall Street Journal

Costs to Build Power Plants Pressure Rates

By REBECCA SMITH

May 27, 2008; Page B3

Construction costs for power plants have more than doubled since 2000, according to new index data to be released Tuesday, and inflationary pressures will continue to put the squeeze on electricity prices.

The findings are bad news for consumers and utilities alike, and help explain why power-plant development has become something of a quagmire in the U.S. -- with no type of plant emerging as a reasonably priced option that can meet rising demand for electricity.

The analysis comes in the form of a price index from Cambridge Energy Research Associates Inc., a research and consulting firm in Massachusetts that is a unit of IHS Co. Similar to the consumer-price index, it calculates the cost of building new power plants based on the cost of materials and other factors.

"Costs for labor, materials, equipment and design and engineering -- all are up," said Candida Scott, senior director of cost and technology for CERA. As a result, the cost of building new plants is up 19% from a year ago and up 69% from 2005.

The skyrocketing price tag comes as the world is roiled by surging electricity demand and as it weathers various supply disruptions, some caused by what appear to be changing weather patterns.

In all, CERA says, the construction of new generating capacity that would have cost \$1 billion in 2000 would cost \$2.31 billion if construction began today.

According to the index, all types of power plants are feeling the pinch. Components and construction materials for nuclear power plants scored the biggest run-up in costs, up 173% -- nearly tripled -- since 2000. Most of that increase has taken place since

2005. Costs for turbines used to generate wind power more than doubled, at 108%, and natural gas-fueled and coal-fired plants saw their capital costs nearly double, up 92% and 78%, respectively.

If anything, the index likely minimizes the rising cost of building power plants, because it doesn't factor in financing costs, and it doesn't include fuel costs. But as prices for coal, natural gas and uranium have risen, they have put added pressure on the operating costs of many companies, and those increases are pushing up electricity prices, too.

The upshot, Ms. Scott said, is that prudent utility regulators should make sure they are basing future decisions on data that are updated frequently, because even calculations less than a year old can be dangerously out of date.

One practical consequence of the inflationary pressures is that they make it harder for plant developers, such as utilities, to lock in prices as part of big projects. The longer the time period involved in construction, the bigger the risks inherent in any fixed-price contracts. Instead of paying for "time and materials," many firms are seeking contracts in which prices are tied to various indexes.

In some states, utilities are rolling out big programs to install millions of "smart" electric meters in the belief they will help cut electricity consumption and reduce the need for new power plants. Oncor, a big utility in Texas, last week said it plans to install three million advanced meters on homes and small businesses, giving consumers a tool to help get a handle on electricity use.

The CERA report underscores the tough choices facing utilities and regulators. Both are interested in finding the technology that will be most affordable.

That is especially difficult, since big power plants often remain in service 40 to 60 years. One commodity whose cost has risen markedly is steel, a important material for building both power-plant structures and power-generating equipment. The cost of iron ore, needed to make steel, rose about 10% in 2007 but has surged 65% in recent months. Shortages of coking coal, also needed to make steel, have been another problem in Australia, a big export

country. CERA said steel costs could rise 40% to 60% this year.

A weak dollar also is a factor, since roughly 30% of equipment needed by the U.S. power industry comes from outside the U.S.

The analysis is of interest because it is difficult to get solid cost data until after plants have been built. Even then, data aren't always available.

Attachment 2

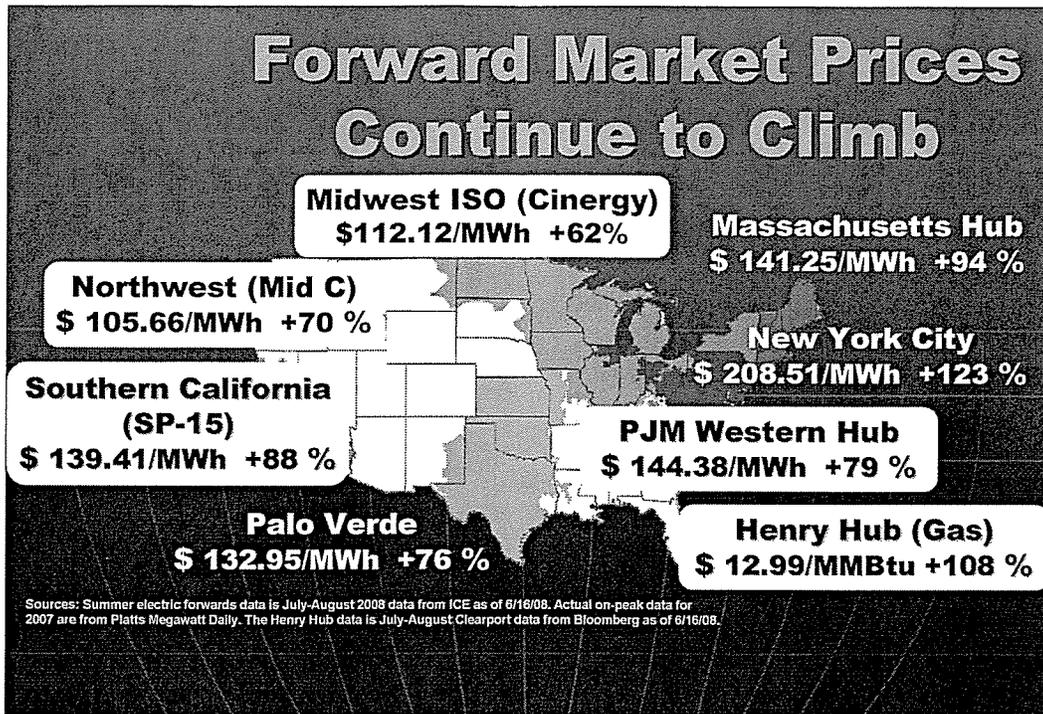
FERC's Office of Enforcement's Report to the FERC Commissioners on Increasing Costs in Electric Markets, presented on June 19, 2008



Increasing Costs in Electric Markets

- **Item No.: A-3**
- **June 19, 2008**

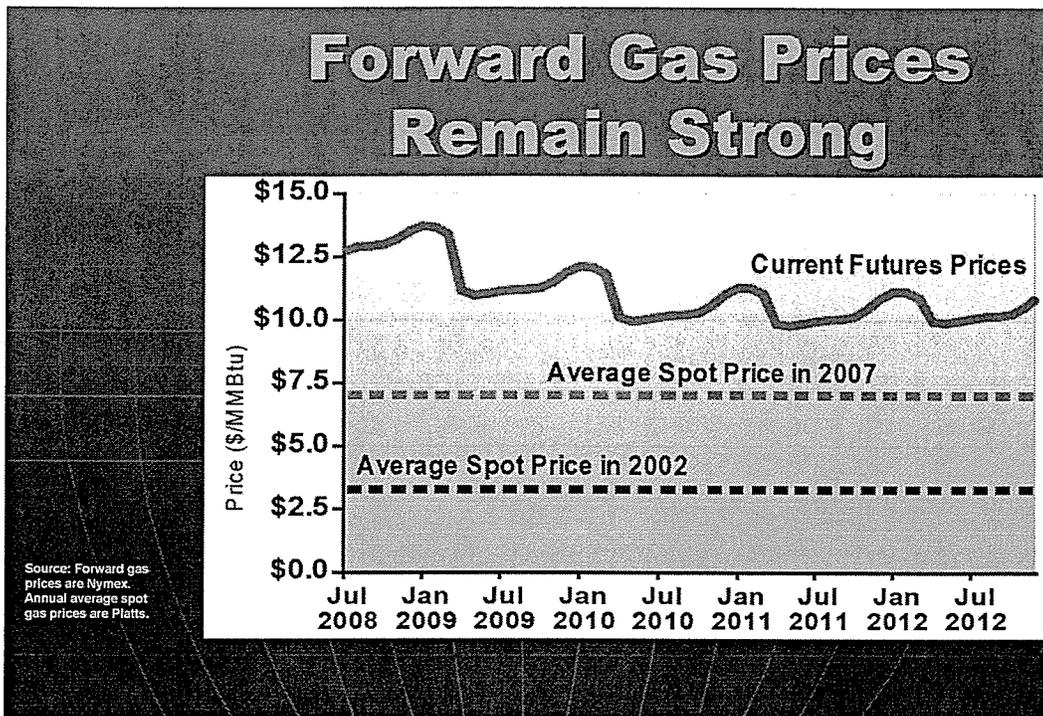
Mr. Chairman and Commissioners, good morning. I am here to present the Office of Enforcement's assessment of likely electricity costs in coming years. This presentation will be posted on the Commission's Web site today.



At last month's meeting, we reported that forward market prices for electric power are much higher than the prices we actually experienced last year. This trend is universal around the country. The slide shows the increases in forward prices for July and August as of this week. They have risen further during the last month as natural gas prices have continued to rise.

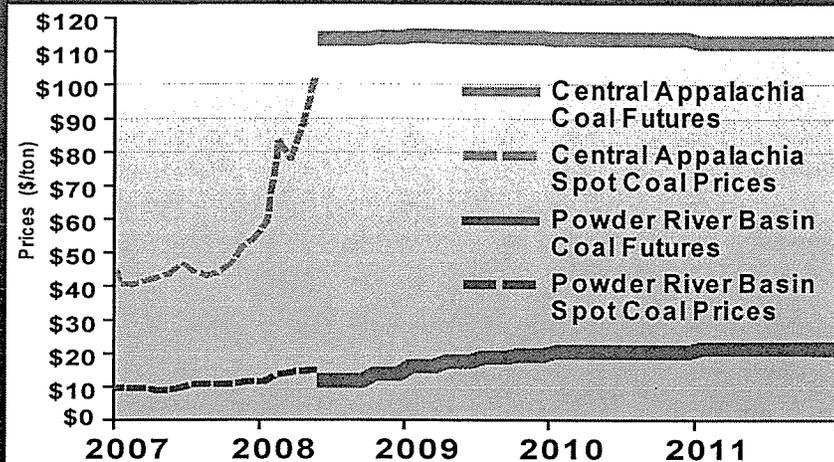
There is little reason to believe that this summer is unusual. Rather, it may be the beginning of significantly higher power prices that will last for years. The purpose of this presentation is to explain why that is so. The two major factors pushing the costs of electric generation higher are increased fuel costs and increased cost for new construction. These factors affect all parts of the country. That is, higher future prices are likely to affect all regions.

Forward Gas Prices Remain Strong



The primary reason for the electric power price increases this year is high fuel prices. All current market indications suggest that they will remain high. Let's look at natural gas, which often determines prices because it is so frequently on the margin. The slide shows futures prices for the next few years. The futures prices are somewhat lower for 2009 than for 2008. Even so, they are a good deal higher for all years than the prices people actually paid last year, and they are much higher than the prices many of us remember from earlier in the decade. The implication is that markets anticipate continuing high prices, even though they know that the United States has seen a significant increase in domestic natural gas production over the last year and a half. The anticipation of further high prices makes more sense when one considers the likely increase in gas demand for generation and the global nature of competition for LNG.

Coal Prices Increasing and Strong



Source: Forward coal prices are Nymex. Coal Spot Prices are Bloomberg.

Natural gas is not the only important fuel in setting electric power prices. Coal still powers half of all power produced in the U.S. In some markets – the Midwest and the Southeast, for example – coal is often on the margin and plays a major role in setting average prices over time. The slide shows that the price of one key form of coal – Central Appalachian coal - has risen rapidly over the last year. Forward markets show continuing high prices for Central Appalachian coal for the next three years. This reflects, in part, the growing global market for coal and the relatively weak US dollar. Coal imports are becoming more costly and coal exports more profitable, both of which contribute to higher prices in the United States.

I should mention that other coal prices behave somewhat differently from Central Appalachian coal. For example, a majority of the overall cost for Powder River Basin coal comes from transportation rates and can be more difficult to see. Nonetheless, the implication of the prices we can see is that electric power prices are likely to increase even where coal is on the margin. This may take place somewhat differently from the way natural gas price increases flow through into power prices. Generally, companies buy coal under fairly long term contracts, so there may be a lag before the higher prices show their full effects. But the effects are coming.

Net Natural Gas Generation by Region (TWh)

Region	2000	2007	Difference
Northeast	66.3	103.9	37.6
RFC	41.0	64.5	23.5
SERC	86.9	150.5	63.6
FRCC	42.0	96.7	54.7
ERCOT	155.9	163.3	7.4
Midwest	44.2	62.8	18.5
WECC-Rockies and SW	28.1	77.6	49.5
WECC-CA and NW	115.4	129.7	14.4

Source: Derived from Energy Velocity (differences due to rounding).

While both natural gas and coal prices have increased rapidly, natural gas is increasingly important in every region of the country. The slide shows that even in regions where coal has historically dominated – most noticeably in SERC– natural gas usage has grown substantially since 2000, up 63.6 TWh in 2007, more than in any other region. Noticeable increases also occurred in FRCC, which has flexibility to burn either gas or oil at many facilities, and also in the Rockies and Southwest where demand continues to grow considerably.

NERC Net Load Projections through 2016

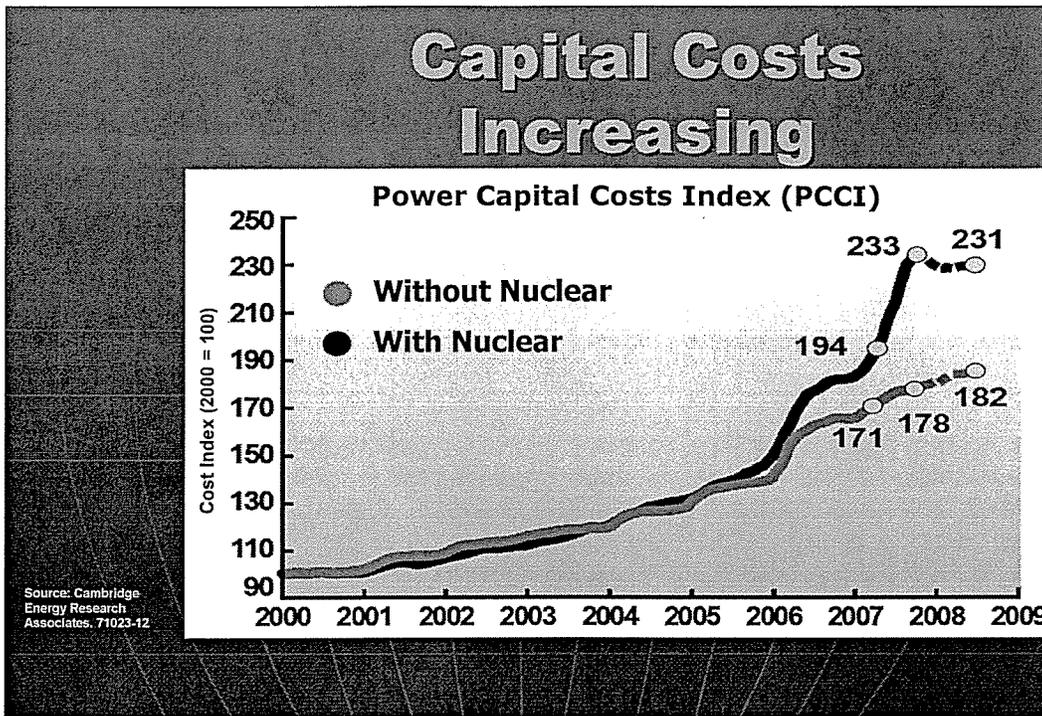
Region	Total Difference (GW)	Percent Change
Northeast	9.7	17
RFC	23.2	13
SERC	28.2	14
FRCC	7.1	15
ERCOT	14.7	24
Midwest	17.2	21
WECC-Rockies and SW	7.6	25
WECC-CA and NW	10.9	10
Total	108.8	14

Source: Derived from NERC 2007 Long Term Reliability Assessment, Oct. 2007 and NERC data request, June 2008.

The second major factor that will put upward pressure on electric power prices is the increasing cost of new construction. This effect is particularly important because the country is entering a period when we will need to make substantial new investments, especially in generation.

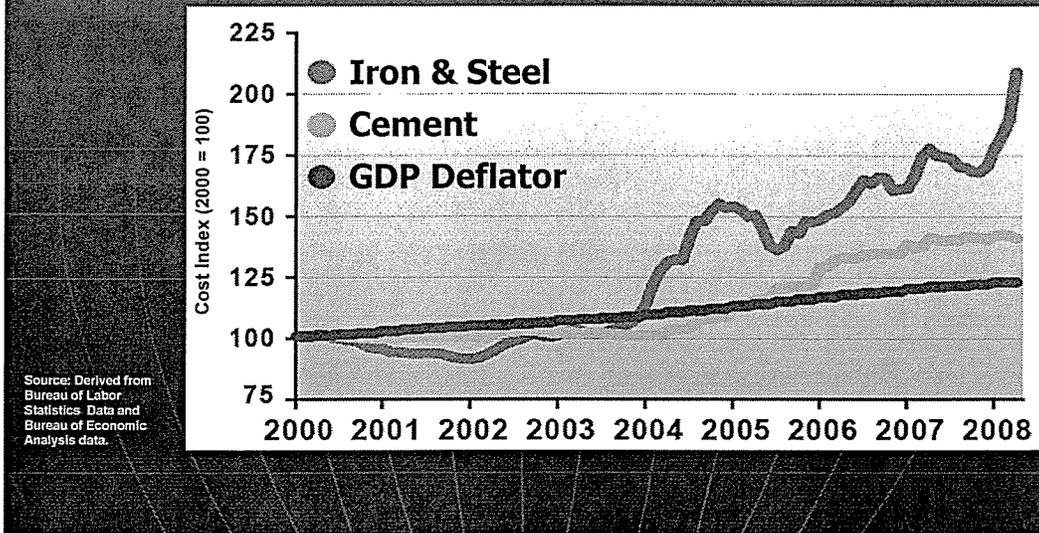
Natural gas fueled most of the last great wave of generation investment, which occurred between 1995 and 2004. In recent years, demand in most regions has gradually caught up with the capacity built around 2000. Looking forward, demand will continue to grow, and the need for new capacity will become ever more acute and ever more widespread. The slide shows NERC's expectation of peak net load growth in different regions for the next 10 years. We at the Commission are not in the business of forecasting, so I would just say this: There are legitimate reasons to be unsure about exactly how much new generation the country will need in the coming years. For one thing, higher prices will themselves discourage some power demand. Nonetheless, a significant level of demand increase seems virtually inevitable. So will be the need to build more capacity.

Capital Costs Increasing



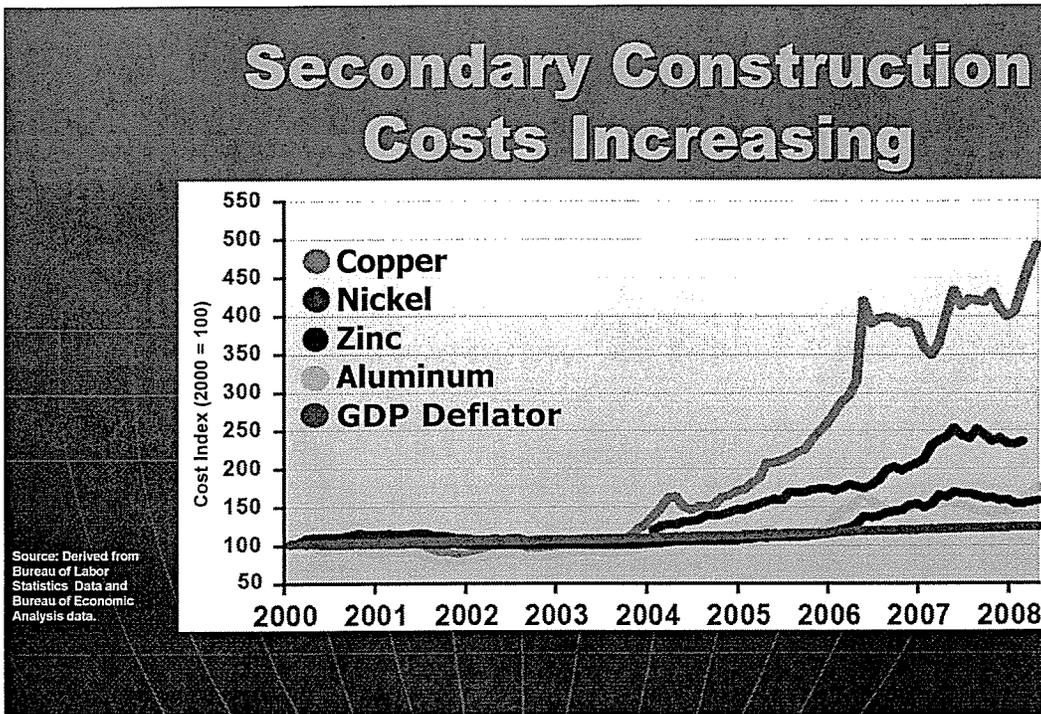
The need for new generation is important because new construction is becoming more expensive – quite aside from fuel price increases. Cambridge Energy Research Associates – CERA – produces an index of costs for the main inputs that go into building new generating plants. The slide shows how that index has almost doubled since 2003. The increase in nuclear plant inputs has risen even faster. Much of this cost increase results from rising global demand for basic materials. Part of it also comes from shortages of people to do key engineering and construction jobs. In any case, the implication is that, we will pay more, not less, for the next round of construction.

Primary Construction Costs Increasing



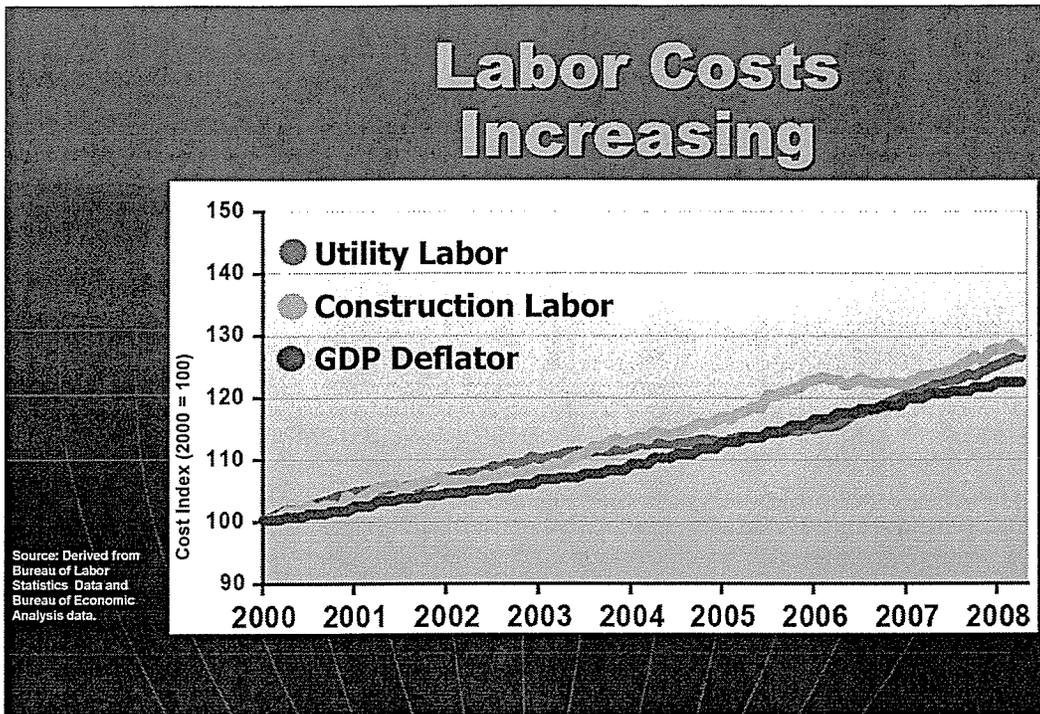
Let's look at some of the reasons that CERA's index is rising so rapidly. The slide shows two of the primary construction materials for electric generating plants – concrete is on the blue line and iron and steel on the red line. As you can see, the prices of both have been rising recently – especially steel, which is now more than twice as expensive as it was four years ago. Rising costs for iron and steel will also affect fuel prices for the power industry. For example, natural gas wells and pipelines both use substantial amounts of steel, so natural gas costs will also reflect rising iron and steel prices.

Secondary Construction Costs Increasing



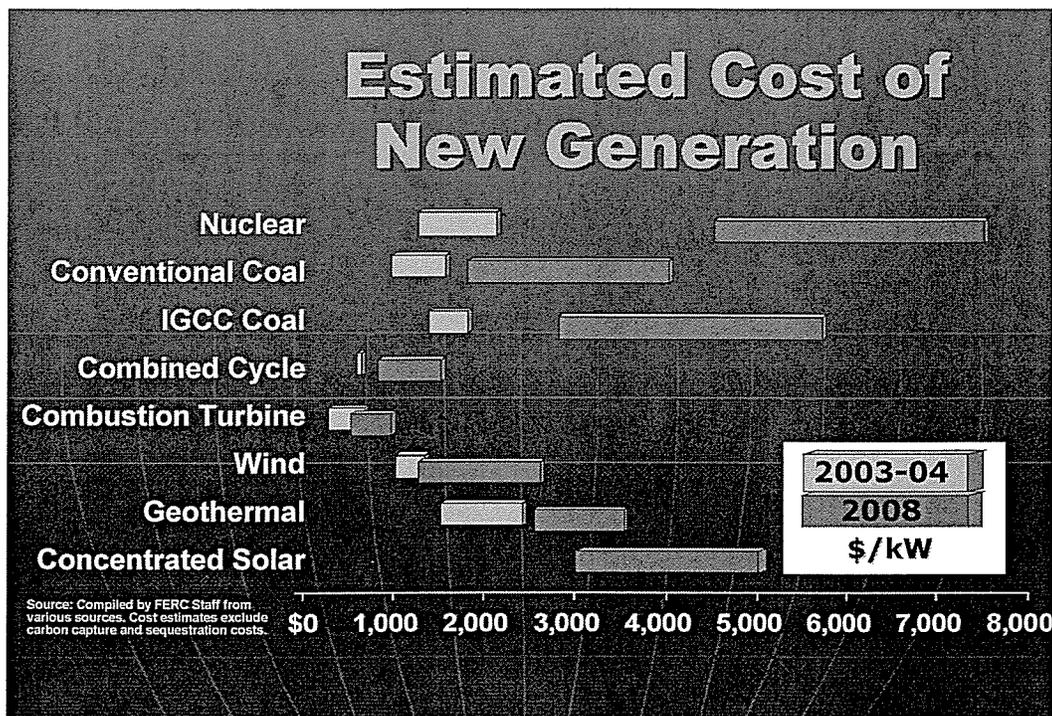
Of course, new generating plants require many other basic commodities. The slide shows the pricing for four key metals that go into generators. As you can see, all of these metals are increasing in price. The one that stands out is copper, up more than five times over the past four years. Indeed, copper is now so valuable there are reports of copper thieves cutting live cables to steal the metal.

Labor Costs Increasing



Labor costs are also increasing. Perhaps the most frequently cited labor shortage is that for nuclear engineers. It has been a full generation since the nation built its last nuclear plant. Most of the engineers who worked on those plants are near retirement – and many have moved on to other occupations. In fact, the labor shortages are more widespread than just nuclear engineers. The slide shows that there has been about a 27% nominal change in average hourly earnings for both construction labor generally and for non-construction utility labor since 2000, outpacing inflation by over 4% for the same period.

In practice, the American labor market is quite responsive to market forces, so short-term labor shortages tend to be self-correcting over the mid-term. Still, there is no quick way to force several years of education into six months, or decades of experience into a year or two.



What do all these cost increases mean for the cost of building a new generating plant?

No one knows precisely. It's difficult to get consistent and trustworthy numbers about plant costs, both because they are commercially sensitive and because the assumptions behind them vary greatly. The numbers reflected on the slide come from a variety of sources and include different assumptions about, for example, location or exactly what facilities are included in the estimate. To take one example: Two recent nuclear procurements in South Carolina and Georgia produced cost estimates of \$5,100 and \$6,400 per kW, respectively, for the same technology. We have been told that most of the difference may be due to different uses of Allowances for Funds Used during Construction – AFUDC.

Despite the difficulties in being precise, the slide represents a good general indication of how capital costs have been changing. If anything, the cost estimates may be lower than the final costs of projects, if input costs continue to rise.

It's also important to remember that these cost estimates cover only capital costs. They do not include fuel costs, which as we've seen earlier will be a large factor for both natural gas and coal-fired plants. To the extent that plants do not have major fuel costs - they may be more competitive over their life cycles than would be suggested just looking at the capital costs. That would affect renewables and, to a degree, nuclear plants.

Similarly, these estimates generally do not include a full accounting of major risk factors, especially those affecting coal and nuclear plants. Both of these technologies have long lead times. That increases the chance that market conditions will change before they are complete and adds to the financial risk of building them. Nuclear plants also have risks associated with both decommissioning and waste fuel disposal. And coal plants have risks associated with the future treatment of greenhouse gases. Of course, relatively new technologies like wind and the new approaches to nuclear also have some risks, simply because they do not have the same track record of more mature technologies.

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Climate Change Debate Affects the Market

- **Uncertainty about future carbon regime is a key factor**
- **Affects coal most of all**
 - Greater carbon emissions
 - Many plant cancellations
- **At the least, coal builds will be delayed**

Climate change has become an increasingly urgent national issue. The debate over how to address carbon dioxide emissions is lively and has already affected how companies think about investments. Until recently, rising natural gas prices made coal plants attractive. However, the national uncertainty about carbon policy has made investing in coal plants more risky. Without carbon capture or sequestration, coal unit emit about four times as much carbon as natural gas combined cycle units per MWh. Since January 2007, 50 coal plants have been canceled or postponed. Only 26 remain under construction.

Whatever the eventual result of the climate change debate, costs of producing power from both coal and natural gas are likely to increase. Moreover, as long as future climate change policy is unclear, market participants will have a considerable disincentive to invest in coal plants. Even when the issues are resolved, it remains an open question how competitive coal-fired generation will be, and it would take another four to eight years to build new coal-fired capacity.

Natural Gas is Critical in the Mid-term

- **Coal and Nuclear – Long lead times**
- **Renewables – Important but do not fill capacity needs (yet)**
- **Demand Response and Energy Efficiency – Key ingredients**
- **Natural Gas – The necessary technology for the immediate future**

Over the long run, the nation can meet its increasing need for generation in several ways. But for the next few years, the options are more limited, and natural gas will be crucial.

The lead times for both nuclear and coal units mean that they will not supply a significant amount of new capacity for nearly a decade.

Most people expect renewables to supply an increasing proportion of the nation's power. For the next few years, wind will almost certainly account for a large share of generation investment and will account for a growing share of overall generation. Wind power has no fuel costs, and so will generally operate when available. However, wind is a variable, weather-dependent resource. As a result, it will not make up as strong a share of the Nation's capacity needs over the next few years. Other renewables are becoming more competitive. Geothermal power is already an important resource in the west, and concentrated solar is becoming economically attractive in desert areas like the Southwest. But these sources are likely to remain relatively small in the national picture over the next few years.

Both demand response and energy efficiency will be important – I'll talk more about them on the next slide – but they are unlikely to eliminate the need for new capacity.

Overall, the most likely outcome is that natural gas will continue to be the leading fuel for new capacity over the next half decade. For example, the consulting firm, Wood Mackenzie estimates that in a carbon constrained environment, gas consumption for power will increase by 69 % by 2017. That's in addition to the 55% increase we've seen since 2000.

Potential Responses to High Prices

- **Economic Demand Response**
- **Energy Efficiency/Conservation**
- **Technological Innovation**

Over the years, we have learned repeatedly that people respond to prices. In the case of electric power, this is likely to take several forms.

First, there is likely to be more demand response. In the simplest terms, high prices at peak will lead some customers – both businesses and others – to prefer to save their money rather than use power. In fact, the first round of demand response may be both the cheapest and fastest way to improve capacity margins on many systems. The best cost estimates for the first rounds of demand response suggest that it should be available for about \$165/kW, far less than any generation side options. The results of ISO-NE's first Forward Capacity Market auction last year corroborates the economic importance of demand response - 7.4 % of the accepted bids were for demand response. However, there are impediments that limit the full use of demand response. For example, most customers do not have the option to respond directly to real-time prices. As a result, they are unlikely to reduce peak consumption as much as they might prefer to if they could take advantage of the price.

Second, customers are likely to be more energy efficient. While few customers see real-time prices, most get an average price over a month. As a result, high prices give them considerable incentive to reduce their overall consumption of power – though no more at peak than at other times. That is, energy efficiency is essentially a substitute for baseload capacity, while demand response is a substitute for peaking capacity. Energy efficiency is also likely to be economically important. Cost estimates show that the first round of energy efficiency may be available for about 3 cents/kWh. At

Continued on next page

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current prices, supplying that same kWh from a combined cycle gas plant would cost 9 cents just for the fuel. Adding to the likelihood of greater energy efficiency is that many states have adopted fairly strong energy efficiency standards.

Third, innovators see higher prices as an opportunity. By the nature of things, it's hard to predict what innovations will succeed. The electric industry has a number of technologies that might take off – including concentrating solar power, hydrokinetic power, and vehicle to grid technologies. In addition, distributed generation is becoming more important, and may continue to do so for both cost and emissions reasons. In other newly competitive industries, such as telecoms and natural gas, innovations have produced large changes, sometimes quickly. Given continuing high electric prices, the electric power industry may see similar results.



Increasing Costs in Electric Markets

- **Item No.: A-3**
- **June 19, 2008**

That concludes our presentation. We welcome comments and questions.

Confidential Attachment 3

Detailed Project Cost Breakdown

*Confidential attachment filed pursuant to "Motion for Protective Order"
pursuant to the Commission's August 22, 2008 Secretarial Letter*

Attachment 4

DETAILED NET PRESENT VALUE OF REVENUE REQUIREMENTS

Attachment 5

SNLi article, July 1, 2008

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[<<Return to Previous Page](#)**Power & Coal - Infrastructure Development****Dominion starts construction on Virginia clean coal plant***July 01, 2008 8:14 AM ET*By [Adnan Munawar](#)

Dominion Virginia Power said June 30 it began construction on the 585-MW [Virginia City Hybrid](#) clean coal plant in Wise County, Va.

Construction of the plant is scheduled to take four years, Dominion said.

The plant is part of Dominion Virginia Power's response to a projected growth in demand for electricity of 4,000 MW from its customers by 2017.

The Virginia Department of Environmental Quality issued the necessary air permits following the unanimous [approval](#) June 25 by the State Air Pollution Control Board. The Virginia State Corporation Commission [approved](#) the \$1.8 billion project on March 31.

The circulating fluidized bed unit will use coal and up to 20% biomass for its fuel. The station will provide nearly 1,000 jobs during construction and require a permanent staff of more than 75 people once it begins operating, the company said.

Dominion Virginia Power is the trade name of [Virginia Electric and Power Co.](#), a subsidiary of [Dominion Resources Inc.](#)

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Attachment 6

SNLi article, June 26, 2008



SNL Financial

[<<Return to Previous Page](#)**Power & Natural Gas - Operations and Strategy****EIF raises financing to build 620-MW Kleen plant in Connecticut***June 26, 2008 2:16 PM ET*By [Jay Hodgkins](#)

[Energy Investors Funds Group](#) on June 26 said its United States Power Fund II LP and United States Power Fund III LP have raised construction financing for the Kleen Energy Systems LLC power plant in Middletown, Conn., known as [Middletown Kleen](#).

The financing totaled \$985 million of senior secured bank loans and a revolving credit facility, the company said. EIF said it is the majority owner of the project, with the balance owned by White Rock Holdings Associates LLC.

Goldman Sachs & Co. acted as joint lead arranger and sole book runner for senior secured loans raised to help finance the construction of the project. The bank loans were rated as investment grade at BBB- by Fitch Ratings, EIF said.

"With this construction financing in place, we're able to build a first-class power plant to serve the people of Connecticut," said William Corvo of Kleen Energy Systems. "This plant will provide clean, economical power to an area in need of new power generation."

Construction of the project began in February and is expected to be completed in mid-2010, EIF said. The project will be operated by [Itochu Corp.](#) subsidiary [North American Energy Services](#) and will be managed by Power Plant Management Services.

The Kleen plant will be a 620-MW, combined-cycle natural gas-fired facility. The project won a competitive request for proposals process run by the state of Connecticut and has entered into a 15-year capacity agreement with [Northeast Utilities](#) subsidiary [Connecticut Light and Power Co.](#) for the electricity produced by the plant.

The project has also finalized a multiyear tolling agreement, EIF said.

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split it because there are two parts to it, carbon dioxide and the mercury bill. And about that time REGIE came in. So it makes sense that we ought to try to make sure that what was in the bill in the form of what was coming down the pike, was the regency of gas use. And this other Committee put that out and based on the assumption that we would be addressing this greatly in the future, and we are doing that as we speak today.

And that left the mercury side of the bill. And the Committee recognized that the Senate put a lot of work into that bill, but also recognized that there was a very limiting time constraint. As a matter of fact, many of you perhaps participated in this so-called "midnight amendment," when we tried to fix it and get it over to the House as quickly as possible, and we appreciate the fact that we had all of that to work with to begin with. But the Committee was faced with a choice if we were to work on the bill and amend it, then where does it go? There would be probably significant revisions to the bill; as it turns out they are pretty significant revisions. It was pretty well assumed that the bill would go back to the Senate for concurrence, and quite possibly end up in a Committee of Conference. And there was a problem for some of the members of the Committee that there would not be a full and public hearing in the Senate on the amendment. And so for that reason a course of action that derived was to recommend ITL on SB 128 and use that as the genesis for a new bill, 1673. And that is essentially how we got here today with HB 1673.

Over the summer last year, a lot of developments took place. First of all, many of the stakeholders who were part of SB 128 were asked to participate in stakeholders' meetings to suggest revisions to the old SB 128, and that happened. We had a very good group of folks, including the Governor's office, the Governor's Office of Energy and Planning, Public Service of New Hampshire, Department of Environmental Services, environmental organizations and the office of Consumer Advocate I believe was involved. And they worked over a long period of time and finally just in time for their submission of LSR's last fall, came forward with a draft bill because we had killed 128, a draft bill 1673, which is the basis for what we're considering here today.

I'd like to comment on the support schedule. You'll notice along with some sponsors and co-sponsors that are ... that were interested in this bill and signed on to co-sponsor it during this process. But more importantly is the coalition of support that has evolved. It's been both parties; Democratic and Republican, Senate and the House, House leadership from the Speaker down to the Minority Leader, who again, the Governor's office, very, very strong support on both sides of the General Court and both sides of the political process.

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But what we came out with was I think I've best described as a very reasonable bill, with the primary objective of removing mercury from the environment. And we heard lots of testimony about the effects of mercury and the hot spots in some areas of the state.

A bill which provides for a reasonable reduction in mercury, at a reasonable cost, and I will say it's reasonable and affordable. In a reasonable period of time, by a reasonable group of people, and that bill calls for reduction of mercury of at least eighty percent by the year 2013, and that's only seven years from now and that cost of over two hundred million dollars, depending on whether we talk about our current year or 2013 ...

Senator Robert K. Boyce, D. 4: Mr. Chairman, could we suspend a moment.

Senator Bob Odell, D. 8: Yeah.

Senator Robert K. Boyce, D. 4: Could we either have the door closed or have somebody go clear the hallway? I can barely hear him.

Representative Ross: At a cost of over two hundred million dollars in current ... I lost my train of thought.

Senator Robert K. Boyce, D. 4: Sorry.

Representative Ross: That's okay. By the installation of two methods of technology, one in the short term and the near term of mercury reduction in a near timeframe. We have the technology that's referred to as the "Sobin" technology and as many of you know, he owns a facility. Public Service of New Hampshire at this time are working with the DOE, Department of Energy, in a pilot program to ... and they have received a grant to do that of around two and a half million dollars, and that's why Public Service of New Hampshire ... and they're developing a five million dollar project to develop mercury reduction and capabilities with this activated carbon injective technology over the next two years, so that we should be able to see significant reductions in mercury within a two year timeframe. And by significant, we had an experience last summer with another experiment where they, a vendor ... that perhaps Representative Maxfield might of characterized properly, but I won't repeat terminology, and it was not a very good outcome. But with this experiment with the Department of Energy and really professionals, and they do pilot programs and these kinds of programs throughout the country on many different kinds of power plants.

dad

The Representative from the DOE testified to the Committee that it's possible to achieve fifty to seventy percent reductions in mercury using the Sobin technology.

The other form of technology involves the installation of scrubbers in the stacks of the two plants in Merrimack, Unit I and Unit II. It has been shown that this scrubber technology, in some cases has achieved mercury reductions of ninety percent. The bill calls for at least eighty percent and that's tied to the economics of the bill, the availability of vendors, guarantees that might be required in order to finance this project. And so, with the combinations of the two technologies, one short-term and the scrubbers longer term, I've used just some hypothetical number. If the mercury inputs to the plant say were a hundred pounds per year, as derived from testing the coal, and if the mercury in that coal can be reduced by activated carbon injection as it goes through the process by fifty percent, we're down to fifty pounds of mercury. And if in fact, then the scrubbers are installed and they can reduce eighty percent, we've taken another forty pounds away, and so we're right there at ninety percent, and we fully expect that they'll do better in both cases.

Now, with regard to the timeframe, we have access to some pretty sharp folks on the Science, Technology and Energy Committee, and the one who is Representative Itse who makes a living in the emissions control technology arena. And we asked Representative Itse, with his background, and Representative Chase who's a member of the Committee to coordinate on developing the project schedule for the completion of the installation of the scrubbers; and if I could hand those out?

Please see submission of Representative Larry Ross entitled, "Merrimack Station - Unit 1 and Unit 2, Scrubber and Auxiliary Systems Schedule," attached hereto and referred to as Attachment #1.

They looked at this extensively and basically what it says, if you have to go through the steps that are listed on the side in a reasonable manner, in order to spend two hundred and fifty million dollars over seven years, than this is the chart that's critical. The red lines are a critical path. And that means that one has to be done before another in a reasonable timeframe. And the best we could do is admit to 2013.

And once you start trying to squeeze that in, then you start jeopardizing the availability of equipment, rates on loans that are required, increased risk perhaps, or strikes, or competition for the Stuber technology, waiting periods, delivery times and all of those things, so that 2013, as I

dae

indicated is a very reasonable timeframe to expect this project to be completed. Then there was also a question about the early emissions we needed before 2013, and of course that's where the carbon technology comes from. We fully expect that there will be significant reductions within the two year window, at the end of the two years, that's when that project is scheduled for completion.

There was some concern about not locking in some specific amount during that two year period, but, like I tried to indicate, that we have really an eternal program that's been proven in other places. These plants are unique. We don't know exactly what those numbers will be and we thought it was inappropriate to try to legislate given that technology and the state of the art.

With regard to the testimony that indicated that we could do more than ninety percent. I'll refer back to SB 128, which had ninety percent in it, but it also included mitigation, and by mitigation, then if there could be reductions off-site, which could be counted against that ninety percent; whether it be cleaning out mercury in the traps of laboratory sinks or whether it's thermometer programs, or any other way that could be applied towards the ninety percent. So in effect, we were talking about eighty-two percent on-site is the number I recall.

The most important thing, or one of the most important things in addition to the alleviation of a public health concern, was the reduction of sulfur dioxide which is accomplished by the same scrubbers that we would work with, up to ninety percent. And why is that important? It's because right now Public Service of New Hampshire is having to buy credits, SO₂ credits, which are an important part of the factors which caused acid rain and those kind of things. Is that ... Public Service of New Hampshire is having to buy credits, right now, to comply with federal and state regulations for reduction in sulfur dioxide. It doesn't mean it's being reduced now. It just means that the rate payers are having to pay to buy compliance so that the ninety percent reduction in SO₂ ... that's a heck of a cost avoidance. It's estimated to become at least twenty or thirty million dollars a year that the rate payers don't have to pay. And that's really a double bonus, we get the mercury reductions, we get the SO₂ reductions, we don't have to buy SO₂ credits and that cost avoidance can be used to alleviate the costs of the two hundred million dollars that we're talking about.

So then there was the question of, "What are we doing with mercury credits?" Everybody agreed that we didn't want to be in a CAP A Program with mercury however if possible, within our current regulations for the DES to credit manager up to ... to be able to convert mercury credits to SO₂ credits. And some folks object to that because it looks like we're

subsidizing some plants perhaps in Indiana or Illinois, but I'd like to point out that nobody is going to be selling those credits. They're going to be accumulated and it will further reduce our need to buy credits to be in compliance. That is additional cost avoidance. And if we don't recognize the value of those credits in that manner, I believe the rate payers are leaving millions of dollars on the table if we can't take advantage of it.

So in a nutshell, I would ask you to favorably consider the work that's going into SB 128, and as you've all been to 1673, and to favorably consider, "ought to pass" on the bill that you have before you today. Because, as I indicated, it's been worked out, with a consensus of stakeholder bipartisan, as strong as it's worded and it's a reasonable reduction, and it's a conservative reduction at a reasonable cost, and affordable cost, in a reasonable period of time.

Thank you, Mr. Chairman. I'll answer questions.

Senator Bob Odell, D. 8: Thank you, Representative Ross. Thank you for your testimony. Questions for Representative Ross? Senator Letourneau.

Senator Robert J. Letourneau, D. 19: Could you ... you talked about eighty percent reduction. Could you put that in terms of how much mercury that really involves, or how many pounds of stuff is going in the air?

Representative Ross: I believe the numbers that were floating around with SB 128 was in the order of one hundred and twenty-four pounds of mercury a year. And at eighty percent of that would be the net outcome of, whether it was one twenty-eight and at eighty-two percent of the (inaudible), so eighty percent plus, in this case ... so eighty percent of one twenty-four.

Senator Robert J. Letourneau, D. 19: I think he figured that we'd do the math. Thank you.

Senator Bob Odell, D. 8: Any other questions? If not, thank you, very much for being here and I want, I think, been involved in, as its been mostly as an observer for the past year or so. I commend you and those that you work with for coming together and bringing what I think in the legislative process is a ... gives us credibility and stature and that is to build consensus. No one in a democracy is always happy when they go home, and it's a business of compromise, and you've been a great leader in bringing that consensus and that compromise to us.

Representative Ross: Mr. Chairman, I think the credit goes to the Committee. Thank you.

Senator Bob Odell, D. 8: Thank you. Thank the Committee on our behalf. I'm going to call on Senator Martha Fuller Clark.

Senator Martha Fuller Clark, D. 24: Senator Odell, I signed in support of the bill, but I don't need to speak.

Senator Bob Odell, D. 8: Oh, okay.

Senator Martha Fuller Clark, D. 24: Thank you.

Senator Bob Odell, D. 8: All right. And I'll call on Representative Jay Phinizy.

Representative Jay Phinizy: Good afternoon Mr. Chairman, members of the Committee.

Senator Bob Odell, D. 8: Welcome to the Committee.

Representative Jay Phinizy: For the record, I'm Jay Phinizy and I represent Acworth, Charlestown and Langdon in Sullivan County. I'm co-sponsor of this bill and I signed up in support of the bill, however I have reservations and I would like to speak to some of those reservations. I've made observations on where I think the bill could be improved even further. In the spirit of compromise, I think it's important that this Committee look at these recommendations and suggestions.

At the outset, what I'd like to do is I'd like to discuss this almost as if it were a contract and an agreement between a company and the state. And, in essence, that's what it will be over the next few years. Once we get into this contract and agreement the base will be tied. Some people would sell, well, we can quite possibly change these terms of agreement later on, but I don't think that will allow to be favorable to the company or to the people. So therefore, what I'd like you all to do now, over the next couple weeks, is look very hard at this bill, and look very hard at some of the ramifications that it may have. You'll be hearing from someone in testimony a little later on today regarding a proposed amendment or suggest the recommendations for an amendment, and I basically, wholeheartedly support some of these recommendations because I think they have great value.

Right now, if you look at the bill, one of the things that I've found problematic with it, and there's some things that I like very much agree with this bill, but one of the things that I find problematic with it is the

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way they essentially bundle the mercury tabulations. And you'll see on Page 2, the Section 125-O:12 Definitions; and they talk about affected sources, and that's in line 10. And then we talk about base line mercury emissions, and that's on Line 12. And you'll see here it says, "Baseline emissions means the total annual mercury emissions from all of the affected sources, calculated in accordance with RSA 125:O:14.

In essence, the way I read this bill and the way I'd like to see it changed is be to calculated but calibrate in view of the emissions on a plant-by-plant basis. And I think that's critically important. Therefore, I think what you do is you get a far better reading from the situation. You'd find out that you'd have a far better analysis of just exactly how one plant is doing versus the other, which is Schiller versus Bow and Merrimack. There is a change in here that I do agree with wholeheartedly and the Chairman of the Science and Technology Committee and I did agree to this change and that's on Page 3 and its Line 24. And it talks about the reporting by June 30, 2007 and annually thereafter. And I think this is an excellent idea because essentially what this does is that it essentially keeps tabs of what's going on with the progress of this entire installation process. However, I would like to see that shortened. And I think it would make more sense to have that on a semi-annual basis. That way, if there seems to be problems, the legislature and the state can react more quickly than on an annual basis. One of the problems I do have with that however, is that once we enter into this agreement, and once the plant essentially or the company starts dealing with specific items and specific installation procedures than essentially, I don't think there's any turning back. That leads me to the next point.

I think that the deadlines are way too far out. And the reason I think that they are way too far out is that, and I'll refer to the EPA Report, as well as other people would refer to, quite simply some of the other states that are at hand. Right now, if you look at this bill and if you look at an out of sight of controlled mercury emissions from 2/05 electric utility boilers and it's an EPA Air Pollution Prevention Control Division in court, it states specifically, and it lists various different kinds of retrofit and technology to be able to put onto this system, essentially says, that if you applied what they call "Selective Catalytic Reduction," which I believe this plant already has, the major plant, an FGG of PM of mercury control system, that these installations could prepare within three to four years. So when we enter into this contract and when you start to deal with this issue, what I really think is more important is that we need to keep a very short time line and then we allow that time line to be relaxed, if necessary, if we find that there are technical problems. Consistent with that, the current bill also speaks to some very, very specific technology requirements, and I do agree with the activating carbon injection system, however, I think what probably would make far greater sense is if this

bill were to follow the same format as 128 and merely talk about requiring the company to come into, what we call reduction compliance, and allow them to be very specific and deal with that kind of technology without us basically mandating this specific technology. I think it's very important that we don't micro-manage. I would sight the most recent Maryland bill. And I'll give you a quote there. And I think it's something that we ought to follow. It says, "a person that owns, leases, operates or controls an effective facility that are subject to the requirements of this statute may determine how best to achieve and collect the emissions requirements under subsection A, B and C." In essence what they're saying is they rely on the company to make the best business decisions. They do not rely on this legislature regardless of whether it's an individual or committee or a group of people and a midnight amendment suggesting any kind of specific control technology. I think this is a very important thing to take into consideration when we review this bill.

Further on down the line I look at the question of credits. I am very concerned about mixing even the mercury credits with the other credits. I think that we have to be very careful about that. There will also be other people to speak to that issue.

In closing, what I would like to say is that yes, I will support this bill and yes, I will support it and I will agree with it in the long run. However I think we can go further and I think we can compromise and come out with a far better product. We're a teacher right now at writing the final report. I would probably give this report or this term paper a C+. I think quit frankly, this Committee and the legislature can do a whole lot better. I think we can come out with a B+ term paper or B+ report, and I believe that it's up to you all to take this and look at it even further.

And one of the things that concerns me about extending the time line entirely too far out is whether or not we really come into compliance in a reasonable amount of time and whether or not we will come into far greater costs further down the line. If we turn around and allow too far an extension into the future, the costs will be far greater and this gets into, what I consider a very, very important factor, which is an increased cost to the ratepayer. And I think that's something that you have to be very considerate and concerned about. If we allow this in essence to come into production, oh let's say in 2013, the cost of installation over that period of time could be passed off to the rate payers. So I think we have to look at that.

Now, looking at you at this table, essentially three of us, including myself, right now we've probably suffered when it comes to increased rates. Probably two of you will have constituents that will suffer if we don't get mercury and SO₂ emissions reduction sooner. So I think we

have to look at much tighter deadlines. I think you have to say to yourself, it's much better to set a very tight deadline, get into a contractual agreement and a very tight closed manner. And if there are technical problems, allow that agreement to extend a little bit. And I think that's important strictly for the protection of the individuals of the state and your constituents.

One of the things in the Maryland bill that I would have a little focus on, and I'd be glad to leave a copy of the Maryland bill, is it has some good aspects, this is something that I really actually agree with Representative Ross. I think you should focus on essentially putting in a study committee that would basically look at, and I'll read the section in the Maryland bill. It says, "the Department of Environment shall contract with an academic institution in the state for a study of whether there will be adverse impacts on the state economy or the liability of the state's energy supply and the cost of energy for consumers as a result of the state's entry into a continued participation in the regional greenhouse gas initiative." Now they say, of course, among mid-atlantic and northeastern states. I think this is important that you attach a study to this bill so that we keep the whole regional greenhouse initiatives, the costs and the necessity alive. To me that's a very important factor. This is not just a mercury bill. This is an air pollution bill.

With that I thank you. I've tried to condense a fair amount of what I wanted to say and I'd be glad to take any questions.

Senator Bob Odell, D. 8: Representative Phinizy, thank you very much. Any questions? Senator Letourneau.

Senator Robert J. Letourneau, D. 19: Representative Phinizy, could you tell me how much mercury is falling on New Hampshire right now, currently? Do you have that ... any idea?

Representative Phinizy: No, I couldn't tell you that. How much actual mercury is falling on New Hampshire? I can tell you that it was estimated out of the Bow/Merrimack plant there were about one hundred and twenty-five pounds.

Senator Robert J. Letourneau, D. 19: But we already heard that.

Representative Phinizy: I understand that.

Senator Robert J. Letourneau, D. 19: I'm wondering how much mercury is coming from the plants in Ohio and Illinois and Michigan?

Representative Phinizy: Well I happen to be ... if I can't ...

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Senator Robert J. Letourneau, D. 19: They don't have any trouble zones?

Representative Phinizy: Well I'm not going to speak to that issue. What I'm going to speak to is what's important locally. And I happen to think that mercury does not travel to the degree that the other high flying gases travel. I think that's very important we install mercury scrubbers. I do support that part of the bill that says, "Let's put that technology on now." What I would like you all to do is look very closely to make sure that that technology continues to run throughout the life of it. That it's not shut down in a year or two. I think that's a critically important aspect.

How much mercury is coming from the mid-west? Frankly that's between you and fence post, and that's not important; it's how much mercury we're generating here. That's critically important. Right now, the plant, the Bow Plant generates a phenomenal amount of mercury. And those two plants now reduce their mercury production, which would be the Penacook Plant and the Claremont Plant. They will essentially, in the next few years, be down, I think to fifteen to twenty pounds.

Senator Bob Odell, D. 8: Senator Bragdon.

Senator Peter E. Bragdon, D. 11: Thank you, Mr. Chairman. Good afternoon.

Representative Phinizy: Good afternoon Senator.

Senator Peter E. Bragdon, D. 11: I think I saw something in the bill ... I understand your concern about stretching out the time frame, but I thought I saw something earlier about some economic incentive or incentives for Public Service to do this a little faster, increase credits or such as that. Aren't there incentives in this bill to at least encourage them to move along a little faster if they can?

Representative Phinizy: Well, of course there are incentives to encourage it, but right now, I went on line and I basically did a little bit of an analysis of the company. Right now the company is losing money. Although their annual gross asset, annual gross revenue is something like seven and a half billion dollars. They are at a loss mode. So if you take a company this entire package, because it's not just Public Service of New Hampshire, it's Northeast Utilities, you take it as an entire package, they may make a financial value judgment that says that they may want to put that off because they may find that it may save them money in the long run. So I don't have a lot of faith in what I call

economic incentives per say, I have a greater faith in a much ... this is why I really like SB 128. Senate Bill 128 said, we'll do "X" in a certain amount of time and you reduce it at least by "Y" amount of pounds of mercury. And if you can't, well then we'll basically go back to the drawing board and see what's achievable. And you see to me, that makes a great deal more sense in giving economic incentives. I just think it ... we don't meddle with business and they don't meddle with us. You know, I get very nervous about giving credits and incentives. Thank you.

Senator Bob Odell, D. 8: Any other questions? If not, thank you very much. And I'll call on Senator Maggie Wood Hassan.

Senator Margaret Wood Hassan, D. 23: Good afternoon.

Senator Bob Odell, D. 8: Good afternoon Senator Hassan.

Senator Margaret Wood Hassan, D. 23: Thank you, Mr. Chairman, members of the Committee for hearing my testimony. Mine is also going to be divvied because I think there are people in this room who can talk about the technical details of this bill far better than I can. But I do want to tell you why I'm here. I'm in support of the bill for two reasons.

One, because I think it represents excellent and hard work by the Science and Technology Committee of the House and it is a solid compromise. And that is one of the things we are in the business of doing here, is listening to each other and moving forward as we can, as we work together and learn to accommodate each other's concerns.

The second reason I'm in favor of this bill, and the thing that I have relied upon in getting me to the point where I support this bill in this hearing today, is the representations by PSNH that they will, in fact, engage in early mercury reduction technology. They have applied for the DOE Grant, they have received the DOE Grant, and I believe they are committed to working with alternative technologies to start reducing mercury sooner, rather than later. That is extraordinarily important to me. One of the things that brings me here is the fact that my Senate District, Senate District 23, and I forgot to say for the record, I'm Maggie Hassan from Senate District 23. (Laughter.) So there we are. Which are Exeter and nine surrounding towns. Is that my district sits in a mercury hot spot. To respond a little bit to Senator Letourneau, I don't doubt that some mercury comes from other places, but I also know that when you look at the maps of hot spots in this state, it is very clear that we are downwind from power plants. And, I hear on a regular basis, as I was just discussing in the Environment Committee, from the folks in my district who I would call and I consider myself one of the mercury moms.

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We don't know entirely what mercury does, we do know it is an enormous health concern for our constituents, particularly those who are dealing with the booming epidemic of autism in this state. And I don't know whether there will be evidence to ever suggest that mercury from power plants contributes to autism, we don't know the science yet. We do know that probably children with autism have a genetically disposition to be vulnerable to combinations of chemicals that most of the rest of us tolerate. And with that in mind, I think mercury reduction sooner, rather than later is a health imperative, just the way reducing lead became an health imperative for the generation too before us.

PSNH I think, understands this. I think they have made public representations that they are committed to early mercury reduction. I am concerned that the aggregate reduction that is being measured in this bill may not be monitoring the seacoast power plants quite the way they should be, and I look forward to working with PSN&H on that further, because I think frankly that that's an area of concern for my area of the state. But we made progress by moving forward a step at a time as we are able to, but we can come to an agreement about how this is a very important issue. And I think that this is a terrific step forward. Thank you.

Senator Bob Odell, D. 8: Thank you very much for your testimony. Questions? Senator Letourneau.

Senator Robert J. Letourneau, D. 19: More of a comment. Thank you Senator Hassan for testifying and I agree with you. I hope you didn't mistake what my comments were.

Senator Margaret Wood Hassan, D. 23: No I didn't.

Senator Robert J. Letourneau, D. 19: Is that we're doing everything we can here in this state to reduce mercury, but we're not doing ... being much ... as the rest of us.

Senator Margaret Wood Hassan, D. 23: And thank you for your comment. I didn't misinterpret that. I will let you know that as the Representative to the NCSL Environment Committee, I am trying to do my bit for New England when I advocate in those meetings to Ohio and the other mid-west states about cleaning up their mercury.

Senator Robert J. Letourneau, D. 19: Thank you.

Senator Bob Odell, D. 8: Other questions? If not, thank you very much. I'll call on Representative Gene Andersen.

Representative Gene Andersen, Grafton/11: I am Representative Gene Andersen and I represent Lebanon. I speak in favor of the bill. However, I do take issue with the time line. I have one, just a quick copy, a black and white of a handout that you were handed out earlier by Chairman Ross.

Please refer to documents submitted by Representative Ross, attached hereto and referred to as Attachment 1.

I'm in construction, and I'll get into that a little bit further. Chairman Ross said that this is a reasonable time line and there are individuals on the Committee, including Mr. Itse and Mr. Chase; Representative Chase who developed this time line. Representative Itse apparently sells process equipment, Representative Chase was a surgeon.

I have thirty-one years in construction working on large scale projects. I am not an engineer, but my title is engineer and I the engineer for the Tobin Bridge in Boston and Ralph Cote's work for seven years. I've worked on a lot of projects. I'm just going to name a few of them because I think they relate directly to the work involved here, and I'm going to also mention the time line and the money because it also relates.

I was a project superintendent for SD Warren Paper Machine, No. 2 (inaudible). It was a \$1.2 billion dollar project which would be over \$2 billion dollars in today's dollars. The project started in 1989. It produced paper in 1990. That is just over one year. Okay? I also was project superintendent, Dartmouth Hitchcock Medical Center, \$228 million dollar project; ground breaking 1988, patients October 1991. Casco Cape Bridge, \$130 million dollar project, three year construction, one mile long bridge, second longest-base fields span in the world, unique project, three years to traffic. I did work on the MWRA project and I also managed quality control for Cronings for approximately sixty percent of the Cronings in the I-93 tunnel section of the central artery. I have worked on those, as well as numerous other projects.

Now, when I saw this schedule that we have here, it's pretty much unlike any other project that I've ever seen. And so I mentioned it to Committee at that time, my experience with SD Warren Paper Machine because I think that was particularly relevant again. In today's dollars, \$2 billion dollar project completed in almost one year.

So here's what I heard. Permit process takes so long and we can't do anything until the permit process is completed. What DES advises is the permit process could be completed in shorter period of time such as six months. I was advised that we could cut back the time and extensions could be given to PSNH if they went over that time. PSNH was concerned

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about the PUC as they said that they'd have to justify these delays by ... I kind of would think that that would be the whole point of the PUC, that they would have to justify those delays. And I have no doubt that if the permitting process was held up, that you and the legislature as well as PUC would fill those extensions.

Another thing I heard, banks won't lend the money until permits are in place so nothing can happen until permits are in place. PSNH is a regulated utility. We're not talking about somebody going out and getting money off the street here. In this bill they have ... the fact is that they're going to get their money back on this. Now, on almost every project of any large scale today it's done from a design build standpoint, including things even like the central artery. The reason for that is that cost of money is so incredibly expensive. So, if you look at this schedule here, you'll see that we've gone ahead ... we're getting the permit ... and I'm ready to start doing scrubber engineering after we get a permit. Obviously on any project that I'm familiar with, engineering goes ahead of almost anything and we're about ready to start the project when we get the permits.

Now, another thing that we heard was that there's a backup due to the demand on these scrubbers. Well actually about a third of the power companies have received these scrubbers between 2000 and 2005. So we're in the process mode right now and the work that is in process now, a lot of it will be completed by 2011 or 2013.

Now you heard Representative Phinizy talk about Maryland earlier. Maryland is going to start requiring scrubbers for technology that will do the work on all of their equipment. So we may in fact be in the lull in engineering and in getting started up on this project when we put this thing out. We may be up against the wall, against many people right now while things are in the process.

Now, it's such a large project that the area would be overwhelmed. This is a very small project, estimated at about \$270 million dollars. I think if you were to look at the City of Boston, which is much bigger than Concord, obviously, however as an MWRA project that was an essential artery and there was also the airport expansion, as well as going ahead and throwing in (inaudible) and all of that time and everything, in a very compressed period of time.

I work for a (inaudible) and Community firm company. Fifty percent of the engineers who worked in Boston five years ago are now gone. That's how these projects should of bulked up. So, it is a very small project.

Now when I mentioned to Representative Itse that this project with SD Warren cost \$1.2 billion and \$2 billion in today's dollars, he said, "I'm sure that that was probably the only project going on at the time." Now in my experiences in construction, that's where I felt that he was a little unaware of how things work in construction. The way things work in construction is everything happens in an industry all at one time. Okay.

The paper mills were very big at that time. As a matter of fact, at the time the \$1.2 million dollar expansion was going on, major expansion that IP and GA George ... Specific with had a (inaudible) took a seventeen story boiler there, Great Northern was expanding and even James Ruther, the owner at Berlin at that time, had about a \$170 million dollar expansion going on, which would probably be pretty much equivalent to this in today's dollars. Now, the people who do this kind of work are the same kind of people who do those would also work on that project.

Another thing I heard was there would not be enough cranes to do the job. To which I said, "Call Camrino Crane, you could have three hundred of them up here right away." Now I think any of you that worked in ... that saw the central artery project, saw that there were tons of cranes down there; they are all gone, they are all looking for a place to go. Now in fairness to Public Service of New Hampshire I ask their lobbyist, I said, "Cranes?" And the lobbyist said, "I'm not sure where that came from, we probably have a crane from Schiller that we could pull over." Now scrubbers don't require a large crane compared to putting in boilers in the first place. So the cranes is definitely not a problem.

So I think that these are the things you have to think about. Right now this work is in the process. Engineering is out there, this is not a unique engineering system. There are about five engineering firms that do design, about five engineering companies that do building. The paper mills, there's essentially only one company in the America, AHOIT, or you have to go outside. So this is not a difficult construction project.

I think the other thing I'd like to just make one comment on. When you think about these things, remember that we built more battleships in World War II than have been built, since before, or ever since. That's how much construction happens in this country. And that's how fast it moves around. And with that I'll take any questions that I might.

Senator Bob Odell, D. 8: Any questions for the Representative? Seeing none, thank you very much for your testimony. I'll call on Representative Naida Kaen. Good afternoon.

Representative Naida Kaen, Strafford/7: Good afternoon. Thank you Mr. Chairman. For the record my name is Naida Kaen. I represent Lee,

Durham and Madbury, Strafford District 7. To begin with I want you to know that I'm not an engineer.

Senator Bob Odell, D. 8: Thank you.

Representative Kaen: But I've been on the Science, Technology and Energy Committee listening to engineers since 1995. I think what may have been slightly overlooked, and I just want to fill in a few gaps. Chairman Ross did an excellent job of representing what has happened and the deliberations in the Committee and around the table in order to come up with the current bill.

What perhaps has been overlooked is the role through the years that has been played by environmental organizations who force the issue, who publicize the issue for who we need some thanks and I hope you recognize that. On the other hand, I am in full support of this bill, as written. I think now that the parties have come together around the table, and come to a consensus that that role is over with, that we have achieved a consensus at this point and we should expedite. The sooner we do this for the people of the State of New Hampshire, the sooner we will begin those mercury and SO₂ reductions. And I simply, I will leave it at that, and if you have any questions, I'm not here to field any technical questions. My role has always been to put the whole thing in perspective.

I just ... one further note from a finance perspective. I do have a background in finance and accounting so I would urge you not to even consider extending a new time line. And my logic is this. It would increase the risk. This is a regulated utility; it may increase financing costs to the extent that the utility can claim that their risk is greater because we put additional pressure on them that their costs will go up. And who do the costs flow through to? The rate payers. We have to take that into consideration, that what we have here is a compromise that takes all the factors into consideration.

Senator Bob Odell, D. 8: Thank you. Any questions? If not, thank you very much for being here. I'll call on Representative ... Representative Theberge from Berlin signed in, in favor of the bill but did not wish to speak. I think I've got all the Senators and all the Representatives. I'll call on Alice Chamberlin from the Governor's office.

As you come up Ms. Chamberlin, I will note that Representative Peter Sullivan signed in, in support but did not wish to speak, and he wants the amendment for eighty percent reduction by 2009.

Senator Bob Odell, D. 8: Welcome.

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Alice Chamberlin, Governor's Office: Good afternoon, Mr. Chairman and members of the Committee. My name is Alice Chamberlin and I would like to read a letter that is under my signature but on behalf of the Governor.

Please see prepared testimony by Alice Chamberlin on behalf of the Governor's office, dated April 11, 2006, attached hereto and referred to as Attachment #2.

Senator Bob Odell, D. 8: Thank you very much for your testimony.

Alice Chamberlin, Governor's Office: Any questions from the Committee?

Senator Bob Odell, D. 8: Questions? Seeing none, thank you very much.

Alice Chamberlin, Governor's Office: Thank you, I'll leave copies for the record.

Senator Bob Odell, D. 8: I'll call on Jared Teutsch from the New Hampshire Lakes Association. Good afternoon.

Mr. Jared A. Teutsch, Environmental Policy Director, New Hampshire Lakes Association: Good afternoon. Thank you, Mr. Chairman and members of the Committee. For the record, my name is Jared Teutsch, Policy Director for New Hampshire Lakes Association. I have another handout here for you as well. It's actually, it says, "Draft copy of a 2006 Section 303(d) Surface Water Quality List" from DES.

Please see prepared testimony of Jared A. Teutsch, Environmental Policy Director, New Hampshire Lakes Association, dated April 11, 2006 and also see submission of the "Draft 2006 Section 303(d) Surface Water Quality List" from NH Department of Environmental Services, attached hereto and referred to as Attachment #3.

The comment period ended March 31st. I'm not sure if it's ... it's no longer considered draft, it may actually be closed, and I'll pass that along as well. I also have a ... the representative for Trout Unlimited could not stay today, so they handed me their testimony, and I'll include that as well on behalf of them.

Please see prepared testimony of Paul A. Doscher, National Leadership Council Representative for NH for the NH Council of

Trout Unlimited, dated April 11, 2006 submitted by Jared A. Teutsch for Mr. Paul A. Doscher attached hereto and referred to as Attachment #4.

On behalf of New Hampshire Lakes Association, which represents over fifteen thousand (15,000) lake enthusiasts, we support this bill as written. Certainly we were a member at the table that supported this bill. We were there with PSNH, with DES, with Audubon, with Forest Society and many others that felt that the compromised approach was the best way to go. And I'll be very brief.

But what I do want to include is, I did highlight it for you in that Section and what it basically says is, "All surface water bodies in the State of New Hampshire are considered impaired." and that's over five thousand plus. That includes lakes and ponds, streams and rivers, all surface water bodies are considered impaired with mercury.

One other thing that I think this bill does very well is the removal of sulfur dioxide. And included in this report, and I don't have the report with me, but I can certainly provide the Committee a copy of the report. It's about one hundred and fourteen (114) pages long and includes all the public waters that are in there. There are waters that are impaired by just PH and obviously sulfur dioxide adds to acid rain deposition, which only adds to the problems with our public water, especially those that are teetering on the brink of acidity. So I do urge you to "ought to pass" this bill as written, and I'd be happy to take any questions.

Senator Bob Odell, D. 8: Thank you very much for your comments, and the letter and the background information. Any questions? Seeing none, thank you very much. I'll call on Joel Harrington, New Hampshire Audubon.

Mr. Joel M. Harrington, Vice President of Policy, Audubon Society of New Hampshire: Mr. Chairman, I have copies of my testimony.

Senator Bob Odell, D. 8: Okay. Good afternoon.

Mr. Harrington: Good afternoon Mr. Chairman and members of the Committee. My name is Joel Harrington. For the record, I'm Vice President of Policy for New Hampshire Audubon Society. As the states oldest New Hampshire based non-profit wildlife organization whose members and supporters include anglers, hunters, birdwatchers, and outdoor enthusiasts, we strongly support House Bill 1673, as written. For ninety-two years we have compiled some of the most extensive data relative to the health of our state's wildlife, including data that contributed to what we know today about levels of mercury in some of

New Hampshire's threatened and endangered species. Over the years, Audubon has helped draft the state's Endangered Species Act, the Clean Power Act of 2001, and now we've helped the legislature in drafting the legislation that stands before you. *doc*

I'd really like to thank the House Science, Technology and Energy Committee. And I would also like to thank the Senate for last year, for really setting the stage for this bill. If it wasn't for the Senate last year, I honestly believe we would not be here today. It really was the framework for why we are here. This has been a bill that's been two years in creation. It has been embedded through numerous experts, the Public Utilities Commission, the Department of Environmental Services, many environmental groups, experts across the region. This has been embedded for a long, long time. The time is now. We just waited too long. And to study this bill for another year has no benefit at all to the health of this state, and to the children and parents and wildlife that really depend on our state to clean up (inaudible).

I'd like to also thank Carl Johnson for sponsoring last year's legislation and also being willing to be co-sponsor to this year's legislation. I think that's a very important observation to be made for his support on this legislation. It represents a hard compromise that will result in significant reductions in mercury and sulfur emissions. For years we've been debating about how best to reduce harmful pollutants in New Hampshire's environment. This year may be our chance with the broad support enlisted on this legislation from both political parties and chambers of the General Court. From the state's two largest angling organizations, from the state's lakes' associations, wildlife organizations, the business organizations, the utility and the state's two conservation resource protection agencies. Ideally Mr. Chairman, no pollution is great for New Hampshire. And if we could feasibly and realistically get to that, I'd be one hundred percent behind it. But we have to be realistic about our approach and some may say ninety percent, some may say eighty-five percent, but we have to be ... we want to support a bill that is achievable and still be part of something and not be a part of something that just sounds good, but is not feasible.

In January, when the Governor made his state-of-the-state address and announced that he would like to see, this year, the legislature pass mercury reductions, there was a standing ovation by all members of the General Court. It was a clear sign, a clear indication of where we're headed in this state on this ... these two major pollutants, mercury and sulfur. This bill has been four months, this particular bill that you have before you, is four months in the making; three days a week, every week. I had no summer vacation and I don't think any stakeholder that was involved in this had a summer. We worked hard on this. And we sent

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graphs out to multiple parties, and it's not discount station groups, its businesses that are going to be affected heavily by a potential rate increase if there's any risk sharing in this. This is a bill that has the interest and respect of all members of the community.

I want to talk about the percentages. We have to be reminded in this bill, and I'm kind of jumping all over the place and going through it as my thoughts come to, but we have to be reminded that in this bill, to deal with the percentage we felt that there's an unknown as to where this ... what scrubber technology will achieve at Merrimack Station. There are a lot of reasons for that. The PSNH Bow Plant has something called a Cyclone Boiler. It is about ... I'm guesstimating maybe two or three in the country, maybe even less than that, which poses significant issues for this type of technology. And so the percentage that a lot of engineers from their company and that we talked to throughout the region, we think that it will achieve somewhere between eighty and ninety. So the low end number was put in here. However, after 2013, after a consistent rate above eighty percent has been achieved, that rate will be quote, "locked in," as the new compliance rate. It could be eighty-five percent, it could be ninety percent, in fact it may be, I don't, you know, think it will get to be above ninety percent, but it could be ninety-five percent. I mean who knows. But that lock in provision, I think it's a real critical point in this bill and it covers that higher percentage. This bill is more stringent than the federal rule. With all due respect to Representative Phinizy, he's saying EPA, but if you recall the EPA count out of their mercury for the last year got a seventy-five percent reduction by 2018. So I don't see how EPA's rule in any way is a model for what we should be doing here in New Hampshire.

I want to talk ... I'll also go on to the time line. And the time line here, someone said, well, let's look to other states. Other states have done, have an earlier time line so why don't we? Well, I'd like to direct you to my last page of testimony. What I've done is a state-by-state comparison of the six mercury laws in the nation. There's only six. And the point here is to look at caveat in each of these pieces of legislation. Let's take the first two, for example on the last page.

Connecticut - they wanted ninety percent, they have a ninety percent reduction by July 2008. It however, the caveat to that is that if we cannot meet the reduction, then the DEP can establish alternative emissions limits by twenty ten (2010). It's in their discretion now if the utility cannot meet it, then they just put an alternative emissions limit on that for compliance; sixteen seventy three (1673) doesn't have that.

Massachusetts - Everybody talks about Massachusetts. Massachusetts has an eighty-five percent reduction by '08 and a ninety-five percent

reduction by 2012. The caveat: the law applies to eight coal-fired boiler units. I talked to the folks in Massachusetts yesterday. Four of these units were already meeting the eighty-five percent before the law was even put into place. And how are they doing it? They are utilizing carbon injection. Well we tried that last year, last year at Merrimack Station and we got less than a twenty percent reduction.

The fifth coal-fired unit, it uses early and off-site reductions. Well we don't have that here. And the sixth through eighth units, which is the infamous Brayton Point Plant has numerous existing controls already in place, a multipronged effort. But the thing is, before that state law was passed, and I don't want to go to long on this, there was years and years of testing, base-line measurements. There's actually a DOE study. There's sampling that took place; we are starting right from the beginning on that under this law.

So I just wanted to point that out and I don't think you have to, the devil is in the details on other states, and we don't have the devil in our details.

Finally, why is sulfur so important to this bill? Well sulfur binds, mercury binds with sulfur. And that's why it's important. It makes it actually a little bit more toxic when it binds. Sulfur is a major contributor to the regional haze, the respiratory illnesses in this state, and if you opened your paper last week, New Hampshire ranked number one in the nation for asthma. And I hear there may be some caveats even to that report. But we definitely rank amongst the highest in the nation for asthma rates. Sulfur causes particulate matter which is the cause to the respiratory illnesses, and nearly every week in the summer I get through my fax machine the air quality report saying, "Poor quality air days in New Hampshire." And that is one of the reasons why we have poor quality areas.

PSNH has built a plant and fortunately they don't like to hear the statistics, ranks thirty-seventh in the country ... out of eleven hundred coal power plants for sulfur emissions. So not by ... by reducing sulfur at PSNH's plant, we are not only reducing a major state source, but we would be reducing a major national source of sulfur emissions. What we finally ... what we need to do is we cannot sit idly and wait for a national solution to an ever growing ecological and health problem. We have a long and we have a successful history of making environmental progress through modest incremental gains. HB 1673 is the next logical step to our future in the air. Members of the Committee, let's not let the perfect become the enemy of the good. Thank you very much.

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Please see prepared testimony of Joel M. Harrington, J.D., Vice President of Policy, Audubon Society of New Hampshire, dated April 11, 2006. Also see "Mercury and Sulfur Emissions Reduction Bill, HB 1673, Frequently Asked Questions, Mercury and Sulfur Emission Reductions, List of Supporters and Contacts, News Article - Concord Monitor, and NH Sentinel Source.com, The Keene Sentinel, "Mercury 2013," and Mercury and sulfur Emission Reductions, State-by-State Comparison - What Do These Laws Really Say? Attached hereto and referred to as Attachment #5.

Senator Bob Odell, D. 8: Thank you very much for your testimony. Questions? Thank you for the efforts you made in this. I'll call on Mr. Harry Vogel from the Loon Preservation Committee.

Mr. Harry Vogel, Loon Preservation Committee: Good afternoon Mr. Chairman, members of the Committee.

Senator Bob Odell, D. 8: Good afternoon.

Mr. Vogel: Thank you for the opportunity. For the record my name is Harry Vogel. I'm the Executive Director of the Loon Preservation Committee for the Audubon Society of New Hampshire, but I'm a biologist by training and I'd like to talk, very briefly about the effects of mercury on loons and wildlife in New Hampshire.

Over the past twelve years the Loon Preservation Committee, the BioDiversity Research Institute and other members of the Northeast Loon Study Working Group have carried out research to assess the threat that mercury poses to loons and other wildlife in New Hampshire. And that research has turned up the following findings: of one hundred and ninety-seven (197) loon eggs tested in New Hampshire, fifty-two percent (52%) of those have mercury concentrations over .5 parts per million (ppm), which is a level high enough to potentially affect reproductive success in birds. And the highest mercury loading of any loon egg, collected anywhere in the United States was right here in New Hampshire, and that was an egg with 3.9 ppm of mercury in it. And that is three times the lethal limit that has been established in other states.

We've also found that other loons captured in New Hampshire have among the highest concentrations of mercury in loons found anywhere in the United States. Out of one hundred and thirty-five adult loons sampled in New Hampshire, eighteen percent were found to have blood mercury levels about 3 ppm which is the established risk threshold for adult loons. And adults with more than 3 ppm of mercury fledged forty percent fewer young than adults with less than 3 ppm.

Individual loons captured on successive years in other states have constant mercury levels over time, but individual loons captured during successive years in New Hampshire show an average nine point six percent yearly increase in mercury in their blood. So they are accumulating mercury faster than they could rid themselves of it.

Mercury is known to be a potent neurotoxin that affects animal behavior, among other things, and results of our studies and other studies in New Hampshire and in Maine has shown the loons of higher mercury levels have abnormal behaviors that affect their abilities to defend a territory and to raise young.

Mercury can be transported over long distances in the atmosphere, but the majority of mercury deposition in southern New Hampshire is thought to be from local or regional emission sources. And so all of these things together, the concentrations of mercury in loon eggs and in adults, the accumulation of mercury in individual loons over time; and the effects of these mercury levels on breeding, suggest that current levels of mercury emissions are high enough to pose a threat to loons and other wildlife in New Hampshire. And therefore, reduction in mercury from those local sources would reduce the amount of mercury in New Hampshire's environment, something that would benefit loons and other wildlife, and also people. And for those reasons, LPC strongly supports any initiative to reduce mercury emissions from point sources in New Hampshire.

Senator Bob Odell, D. 8: Thank you for your testimony. Any questions? Senator Letourneau.

Senator Robert J. Letourneau, D. 19: Just one. The loons are migratory birds aren't they?

Mr. Vogel: Yes they are.

Senator Robert J. Letourneau, D. 19: Is there any evidence that they're getting a lot of this from other places?

Mr. Vogel: Yes. In fact there is some evidence. Loons are ... have the advantage of having both feathers and blood. In these feathers, the feathers that we're taking from these birds; when we capture them we'll typically take two feathers. One secondary feather from each wing and we'll test those for mercury. And the mercury content of those feathers is more of an expression of long-term mercury exposure and the mercury that was in the oceans. Because at the time these feathers were formed, they were actually overwintering on the oceans. And the mercury that we find in those feathers is much vulgar than the mercury in the blood,

which we take as an expression of the mercury that's been gathered more recently on the breeding grounds. So by having those two samples to compare, we can really say with a fair degree of confidence that most of the mercury that is coming from these loons is actually coming from fresh water lakes that they're on in the summer time.

Senator Robert J. Letourneau, D. 19: Where are these birds being captured and tested?

Mr. Vogel: We capture and test loons from all over New Hampshire. Typically ...

Senator Robert J. Letourneau, D. 19: Of the typical birds you're talking about.

Mr. Vogel: Yes. Well, a lot of our loons have been captured from Lake Umbagog, which is in the northern part of the state, but a lot of them have also been captured from the southeastern corner, which has been identified by EPA Atmospheric Deposition Models, as areas where we would expect high mercury depositions. And what we've been able to do, actually the Loon Preservation Committee and the BioDiversity Research Institute, by going out and capturing these loons and sampling the blood, have been able to ground troop that study and validate the results of that study.

Senator Robert J. Letourneau, D. 19: Just talking about the hot spots in New Hampshire, and the plants that we're talking about here are down wind and generally in the southern part and to the east part of the state. Would you venture to guess that a lot of this mercury is coming airborne from the west?

Mr. Vogel: Yes. I think prevailing winds, you know, definitely show that there's an effect. There are two things that I could ... I do have a couple of reports with me. One is our "Meeting with the Challenge," which is a thirty year report and on page 13 of that report we actually have a map showing the highest concentrations, and you can clearly see as well that some of the point sources are showing on that and you can see where they'll ... the effect of that plume goes. The other report that I'd like to submit is the "Mercury Connections Report." And in that report there are three different forms of mercury: elementary reactive gaseous mercury and particulate mercury and the transport distances are given from those. And for the last two, the reactive gaseous and the particulate mercury transport distances are estimated from zero to thirty-three, three hundred kilometers and from zero to five hundred kilometers, respectively. So, that certainly suggests that a lot of this

mercury that we're finding in these biological hot spots is coming from the over sources.

Please see prepared testimony of Harry Vogel, Executive Director, Loon Preservation Committee of the Audubon Society of New Hampshire. Also, "Meeting the Challenge," and "Mercury Connections," reports attached hereto and referred to as Attachments #6, #7, and #8, respectively.

Senator Robert J. Letourneau, D. 19: Just one last question. Are you pursuing federal legislation at all to try and get these plants cleaned up from the west of us? Because New Hampshire is contributing its part and it's spending a lot of money and paying high electric rates because of it and we're willing to do that, but we're still going to see this contamination coming over even after we do all this.

Mr. Vogel: Yes. Well, I'm a simple biologist, sir, and so I'm not pursuing any legislation in other parts. But certainly the work that the Loon Preservation Committee and other folks have done clearly shows a link between these local sources and these pollutants in these hot spots. So that to me suggests that if we clean up these local sources, these hot spots will over time dissipate, and in fact we are beginning to see, we have seen some evidence that loons downwind of some of these point sources, once these point sources have been either checked out or the mercury's reduced, we've seen a fairly quick reduction in the amount of mercury in loon blood in some cases as well, which is very encouraging.

Senator Robert J. Letourneau, D. 19: Thank you.

Mr. Vogel: You're welcome.

Senator Bob Odell, D. 8: Thank you very much for being here today.

Mr. Vogel: You're welcome.

Senator Bob Odell, D. 8: And I'll call on Donna Gamache, Public Service of New Hampshire.

Donna Gamache, Public Service of New Hampshire: If I may, I have Terry Large with me. He's with PSNH ...

Senator Bob Odell, D. 8: Sure.

Ms. Gamache: To potentially answer any technical questions.

Senator Bob Odell, D. 8: Good afternoon.

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Mr. Terry Large, Public Service of New Hampshire: Thank you.

Ms. Gamache: Senator, thank you. I am Donna Gamache representing PSNH and Terry Large with PSNH as well. When you first started the hearing you asked that our testimony be kept to what nobody else had said, so I'm trying to find something to say. So, what I thought I would do is make it very brief and hopefully Terry will add a few comments, and then just leave it open for questions. But the one thing that nobody else brought to your attention was that when we started to sit down as a group, and it was a large extended group, trying to find a solution to removing mercury from the environment, we had to do a couple of things. And that was lay the ground work for how we were going to move forward. The first was that we had to recognize that we're all New Hampshire residents and we're solidly invested in the well being of the State of New Hampshire, environmentally, as well as New Hampshire's health.

We also knew that what we had heard in the discussion on SB 128, that there were certain things that diverse interests in the community did not want. They wanted, for one example, no trading of mercury for compliance. They wanted no mitigation in order to meet the limits. That, you know, all the reductions would take place at the stack. We also knew that they wanted as **much** reductions as possible and as **soon** as possible. We feel that HB 1673 really addresses all of those needs in a very good way. So therefore we do support HB 1673 in its current form. We feel this language is realistic in terms of our ability to meet requirements, it's flexible in the way it aims to keep customers' costs lower, and it's significant in terms of setting emissions reductions limits at what the technology actually achieves on a sustained basis.

But the other point that I wanted to raise was that HB 1673 is really Phase II of the Clean Power Act. And, if you go back and take a look at the principles in the Clean Power Act, it really was meant to be a multi-pollutant approach. And the reason for that was they recognized that there would be, it would be beneficial to customers to try to find technology that could get more than one pollutant reduced and it would also be very beneficial to customers, in terms of costs. And we are very supportive of the final piece of legislation because we feel that it's in keeping with principles, yet up to date with what the needs are of today.

Senator Bob Odell, D. 8: Thank you.

Mr. Terry Large, Public Service of New Hampshire: Thank you Mr. Chairman, members of the Committee. I'm just sitting here and have three bullets that maybe will try to summarize what we see in trying to

(inaudible) this bill. This bill as written, produces the maximum amount of mercury reductions for the most reasonable cost. This bill brings about reductions in mercury as soon as next year, and for years into the future, culminating with the installation of the scrubber technology that not only gets mercury, but SO₂ sulfur dioxide as you've heard. This bill's going to advance the science of mercury removal. We spoke about the DOE grant. Work that with which is already under way and would be implemented this coming and next year and the years into the future so that the science and the technology and the understanding about how to get mercury out of the power plant stacks will be advanced, so that maybe our friends to the west can learn and will follow our lead and reduce emissions of mercury into this state, no matter how much or how little it is. We reduce (inaudible) written services the best interests of the environment of the State of New Hampshire and customers of Public Service Company of New Hampshire. We urge you to vote it "ought to pass."

Senator Bob Odell, D. 8: Thank you very much. Thanks to both of you. Senator Burling.

Senator Peter H. Burling, D. 5: I wanted to ask two questions. What you heard because you were both here through the course of the preceding, two people speak about their view of the relationship between the State and PSNH as a result of this bill. Representative Phinizy talked about this is a five year contract; once you do this nothing ever changes. Is that your view of what we're doing here? Is this a kind of last telephone call between the State and PSNH before we get to 2013?

Ms. Gamache: I'll let Terry follow up to me if he wants to give something more technical. Absolutely not, PSNH has, you don't have to take my word for it, we have history. You can see it out there. We have a history of working with the state continually. We have a very good relationship with DES, we work with them continuously. We work with you, the legislature continuously, and we supported fully the amendment that the Committee, Science and Technology and Energy Committee added to the bill, which required a yearly review by the Electricity Restructuring Oversight Committee beginning one year from its limitation of the law. We fully support it. We have been, PSNH has been, we're just a little over an eighty year old company. We've always been in New Hampshire, we expect to continue to be and we have no reason to walk away at any time.

Senator Peter H. Burling, D. 5: And, if I may, a follow up?

Senator Bob Odell, D. 8: Yes.

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Senator Peter H. Burling, D. 5: Referring to Senator Hassan, I think you could call it a credo, she expressed her belief in the things that your company was prepared to do. But I'd like to hear from you, for the record of this Committee if there are improvements you can make in a faster time frame, if there are reductions you can make sooner. If there are things you can do to get mercury out of our air quicker, will you do them?

Ms. Gamache: Absolutely.

Mr. Large: Absolutely, Senator. This bill incents that behavior and we've demonstrated with the (inaudible) type legislation in the past associated with NO_x removal and other technologies that we will use as promptly as we possibly can to get scrubbers in service.

Senator Bob Odell, D. 8: Thank you. Any other questions? If not, thank you very much. Oh, sorry.

Senator Robert J. Letourneau, D. 19: So, just a follow up with Senator Burling's question. This is a realistic time frame?

Mr. Large: Yes it is.

Senator Robert J. Letourneau, D. 19: For this bill?

Mr. Large: For this legislation it is, yes.

Senator Robert J. Letourneau, D. 19: But if there's a possibility that you could move it up, you would?

Mr. Large: We will begin with the passage of this legislation and follow the steps to engineer, design, permit, finance, and construct this as we can.

Ms. Gamache: If I could just add as a response to your question, and I can't quite remember where it is in the bill, but there is a provision in this language that within the first year we have to have a certain amount of permitting already in the process, and we've committed to doing so, so we will get started immediately.

Senator Robert J. Letourneau, D. 19: We had a Representative, just a follow up, sorry sir ... Representative come in and say that he's been an engineer on many jobs that are much larger construction jobs and that they were able to do so in a shorter time span. What takes so many years to do this? So the Committee understands.

Mr. Large: I would start by saying that there's a balance between time and money. Things can be done faster at substantially higher cost. If you've had familiarity with the Merrimack Station facility, the site, this is a monumental project in terms of that site. There will be multiple cranes. There will be lots of construction activity. They will remove essentially all of the remaining property that sits aside the existing boilers today, along side all the other pollution control equipment that's been added in the last ten years. Two hundred and fifty million dollars is an awful lot of money in PSNH's view. So, if more money were to be spent, could it be done more promptly? Possibly, but to be done well so that the plant can be operated and the maximum benefit from this technology can be derived, it would be best to take a prudent and low fall out approach, as opposed to trying to throw more money or throw more people and solve the issue. Doing it in an organized well thought out and planning for the long-term operation of this unit is the right way to go for everyone involved we believe.

Senator Robert J. Letourneau, D. 19: And just one last question. What is the overall cost of the rate payers on this?

Ms. Gamache: I ... Bob Scott from DES has some charts that he was going to pass out.

Senator Robert J. Letourneau, D. 19: Oh, that's going to be further testimony later on? That ... I can hold off on that.

Ms. Gamache: Okay.

Senator Robert J. Letourneau, D. 19: Thank you.

Senator Bob Odell, D. 8: Any other questions? If not, thank you both for being here. Appreciate your testimony.

Senator Peter H. Burling, D. 5: Mr. Chairman, I have a brief, I'm supposed to be in two places at once and it's across the street. I'll be right back.

Senator Bob Odell, D. 8: All right.

Senator Peter H. Burling, D. 5: I assume we have quite a few people left to do at this point.

Senator Bob Odell, D. 8: We are half way down the first sheet.

Senator Peter H. Burling, D. 5: Excellent.

Senator Bob Odell, D. 8: When we get to a point where we have some that aren't speaking then ... so we've got ...

Senator Peter H. Burling, D. 5: I don't want to miss out on a single thing. I'll be back.

Senator Bob Odell, D. 8: How long do you think Senator Burling you'll be gone? (Laughter).

Senator Peter H. Burling, D. 5: Literally five minutes. I'll be right back

Senator Bob Odell, D. 8: All right. Then I'm going to call on Sally Davis, League of Women Voters New Hampshire. Good afternoon.

Sally Davis, League of Women Voters New Hampshire: Good afternoon. As you'll see at the end, I signed Jane Armstrong's signature with my initials after it because she couldn't get to my house to sign.

My name is Sally Davis. I am a past President of League of Women Voters and follow legislation here in Concord fairly frequently. I've been a member of the League of Women Voters since 1966 in several states and was a part of the original study on air quality back in the '70's, and feel pretty (inaudible) with what we have studied and worked on through the years. So this is to the New Hampshire Senate Energy and Economic Development Committee regarding HB 1673.

Please see prepared testimony of Jane Armstrong, President, League of Women Voters of New Hampshire, dated April 11, 2006, submitted and read to Committee by Sally Davis attached hereto and referred to as Attachment #9.

Senator Bob Odell, D. 8: Thank you Ms. Davis. Any questions? Seeing none, thank you very much. And I'll call on Bob Scott, Department of Environmental Services.

Mr. Bob Scott, Air Resources Division, Department of Environmental Services: Mr. Chairman.

Senator Bob Odell, D. 8: Good afternoon Mr. Scott.

Mr. Scott: Good afternoon. I will attempt to be brief. Obviously the main points have already been raised and I do not like to be repetitious. First of all, I'll hand out our testimony letter and also, if it helps the Committee, a really, a one pager kind of outlining the major points of the bill.

Please see prepared testimony of Mr. Michael P. Nolin, Commissioner, the Department of Environmental Services, submitted by Mr. Bob Scott and also an "Overview of HB 1673," attached hereto and referred to as Attachment #10. *Bob*

Well, at least for me that works better. And finally, since it came up in recent conversation, potential financial impacts to the ratepayers. Much of what I was going to say again has been covered, so I'll try not to be repetitious. I do want to make the point that this is not a new thing for DES; we've been working on this for well over two years. We originally ... we had the Clean Power Act which required the DES to make a recommendation to the legislature, which we did two years ago, and we've been working on this issue every since. And why I say that is I want to ... it's been said that this bill certainly is a compromise, we've vented this issue through many, many resources. I'm very fortunate to have some very good engineers and scientists at the Department, and frankly I have available to me through other venues, other state agencies from other states, so we would avail ourselves to their knowledge also.

So having said that perhaps I could address more directly some of the concerns raised, so at least you know as we debated this issue and came ... this ... what you see in the bill, how we got there, perhaps that would help you a little bit. On the time frame, can it be done sooner? I want to point out, and PSNH alluded to it, but I want to drive it home a little bit more, that plant as it is, Merrimack II, which again the control to be required from Merrimack I and II. But Merrimack II, the largest plant was built in 1968. It now has two ESP's on it which are Electrostatic Precipitators for DL control and its NO_x controls. In order to add yet another layer of control, what we're talking about if you've been to the plant, is putting a brand new stack in, reinforcing the boiler, redesigning certain parts, moving the control equipment; we're not talking just about taking this box here and adding this box. We're talking very major installation changes to the facility, perhaps even depending on the water discharge if there's an issue there of maybe even a cooling tower. These are all very significant. So I'm not here to say that you won't see something before 2013, what I do want to make sure is that this is not an easy thing for the existing plant. In many ways it's easier with a new plant than an existing plant.

And having said that, I have a lot of faith in PSNH and frankly I hope to see something installed sooner. In discussing this bill we planned incentives to give PSNH a reason to do it as soon as possible. It works out financially best for them the sooner they do this. I think that's an important point.

Percentage, we heard some people talk about ... they said the eighty percent and again I'll caveat, the eighty percent is not at that particular plant. The eighty percent is at, of all their coal units, there is three at Schiller also on the seacoast. Those controls they put on Merrimack need to meet the eighty percent for all of that, where I believe that we'll see a higher rate most likely. Can I guarantee you'll see a higher rate? Absolutely not. Again, this is a unique plant. So with that in mind, again we built in incentives to make the company want to do the best they can to get the highest rates possible. And again as it's been mentioned, once the scrubber technology is installed, and I will say scrubber technology is not something you dial up and dial down it's ... you get your reductions. There may be some minor tweaks that can be made to optimize it. For the most part, once that's installed and that is the best technology available today, once that's installed we will get what we get out of it to make it very simple. What we put in the bill is, "Gee, if we get ninety-two point seven percent" or whatever it is, we can lock that in and so we don't need anything on the table environmentally. But we've also provided again, economic incentives to provide the company a reason to try to do the best that they can.

It's also been raised, why are we being prescriptive? Why are we in this regular ... in this law to PSNH to put in a scrubber? And I have to take some personal responsibility for that; I advocated for that myself. Why would I do that? Everybody, including myself I think agrees that we want to see mercury reductions, a high level of mercury reductions sooner than later. We know today that the installation of scrubbers which have a wonderful benefit of SO₂ reductions, also reduce mercury at a high percentage. That is today the best technology, especially taking in to account the multi-pollutant benefits that we know of. What we wanted to avoid is extra time being given, another year, two years of a selection process, what's the best technology, the owner's having to go to PUC to convince them that this is the best technology, and then perhaps having some other company come in and say, "Well, I had this new alchemy and I can do something even better." That's all fine and dandy, but what we're concerned about is we don't want to have this as a method where we're constantly delaying the installation. By calling out scrubber technology in the bill, we're signaling PSNH from the word go to start to engineer, design and build scrubber technology right away. The bill has in it, within one year of passage of the bill, they are required to have all their applications in to us, which means there's a lot of engineering work they have to do. This is starting ... this is in the ground writing for the plan, and this is why we did that.

Costs to the ratepayer, again this needs to be looked at in the context of the existing New Hampshire law which puts a fairly stringent requirement on the utility for SO₂, again by having to buy SO₂ credits.

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This is the same law under 125:0 that is being amended should this bill pass. What this does is because of that existing requirement, again it's been mentioned PSNH and again I'll mention it, 2007, when that kicks in, they are required to buy, since they won't have the scrubber's installed yet, roughly over twenty million dollars worth of SO₂ credits to comply with our state law, not the federal law. With that in place, that makes installation of scrubbers very economical such that as you look at the chart, ultimately it ends up being a cost savings to the ratepayer because the facility no longer has to buy as many of these credits to meet the current state law.

Please see "Mercury Compliance Cost - Annual Rate Impacts," submitted by Mr. Bob Scott, Air Resources Division, Department of Environmental Services, attached hereto and referred to as Attachment #11.

And finally Senator Letourneau is not here, so I won't go on to much. Yes the state is very involved in legal action regarding mercury from other places and cleaner mercury rule as many of you know that we're suing the federal government, frankly over, so that that is our attempt to make sure, not only are we doing the right thing in the state, but to make sure we are not receiving mercury, unnecessarily from outside.

And as a final note I will add this is a problem, again for Senator Letourneau who is not here, the "hot spot" issue. Yes we're getting mercury pollution from outside sources, very definitely. But we're also because of the NO_x technology that would be required beyond these units; it had the impact of oxidizing the mercury that does come out of the stack. Because of that, that exacerbates the local problem. And as I said before, I call out that no good deed goes unpunished. PSNH was doing the right thing to do that, but now we've had ... they have unintended consequences. This is a way to fix that consequence also. With that I'll gladly take any questions.

Senator Bob Odell, D. 8: Questions for Bob Scott? You are the top air quality person in the State of New Hampshire in the state government.

Mr. Scott: I was a director there for Resource Community Health.
(Laughter).

Senator Bob Odell, D. 8: I've heard some ... we've had some comments made today that we're falling behind the state, other states and we're not up to quality and I, and yet from the consensus statements people have made, in particularly the chart that Mr. Harrington gave, I would think that this is, we're the seventh state in the country to do this, that this is

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pretty progressive. I mean this is stepping up and building a consensus that hopefully will get a strong vote here in the Senate?

Mr. Scott: I argue that characterization. And I, and again I'll remind everybody that we'll look at what other states are doing and it's so progressive, they're requiring, for the most part, the installation of scrubbers. That's what we're requiring.

Senator Bob Odell, D. 8: Thank you very much. Appreciate it.

Mr. Scott: Thank you.

Senator Bob Odell, D. 8: Appreciate your efforts.

Mr. Scott: In final, I do want to say how pleased I am to be able to talk on this bill.

Senator Bob Odell, D. 8: Good. Thank you.

Mr. Scott: Thank you.

Senator Bob Odell, D. 8: I'll call on Catherine Corkery from New Hampshire Sierra Club.

Ms. Catherine Corkery, New Hampshire Sierra Club: Sir, if I could switch places with Georgia Murray from AMC?

Senator Bob Odell, D. 8: Okay.

Ms. Corkery: She's got a lot further ride home than I do. (Laughter).

Senator Bob Odell, D. 8: All right. So then do you want to speak after?

Ms. Corkery: Or wherever she was, or whatever you'd prefer.

Senator Bob Odell, D. 8: All right. Consider yourself switched.

Ms. Corkery: Thank you. I appreciate that.

Ms. Georgia Murray, Appalachian Mountain Club (AMC): Okay, I have a handout. For the record, I'm Georgia Murray. I'm the Appalachian Mountain Club's Air Qualities Staff Scientist and I appreciate this opportunity to speak here at this hearing.

AMC

Please see prepared testimony of Ms. Georgia Murray, AMC Staff Scientist, attached hereto and referred to as Attachment #12.

The AMC recognizes the long hours and hard work put into the development of this bill, HB 1673. We appreciate the ultimate goal, a scrubber on Merrimack's Station that will reduce both mercury and sulfur dioxide emissions. We really like some of the things that Bob Scott just spoke about that again, reduces mercury and SO₂, that does not allow the sale of mercury credits as mercury credits and that it locks in that mercury reduction level obtained by the scrubber. We think these are all good pieces to this bill.

However, we're here to ask you to consider whether this bill is as good as it gets. Or does it short change New Hampshire ratepayers and the environment. And we urge you not to let this opportunity pass to make this process worth while to insure that for all the work that was put in that we got the best package that we could possibly get out of this process.

You know, I expected to hear that this bill, as is, does not need to be fixed and provide certainty for success. AMC believes the bar is set too low though in this bill and believes with incremental improvements, at the end of the day we can all say we did our best if we just improve it slightly. So I'm here today to ask you to improve HB 1673 while retaining workable economic incentives and flexibility for compliance.

I ask if moving the time line by one year as I propose, and I have a one pager as well on those changes, would make for a catastrophic uncertainty and not weigh to success. We know that it would, with certainty, save the ratepayer around twenty-six million dollars a year. The earlier this goes in, that's an annual savings of about twenty-six million dollars through that avoided SO₂ allowance cost need. Many organizations in the state do believe that this kind of retrofit can be done faster than is currently proposed, and a host of other states, I do think, believe that it can be done faster as well. And furthermore, AMC and its members would do what's within our power to expedite the public permit process for Merrimack Station. Certainly that is one area that PSNH identified as something that could be helped along is that public permit access. And we would help the process to expedite that.

I also ... as for increasing the target of eighty percent reduction to eighty-five percent lead to failure? Again, there's been a report out by EPA that says that ninety percent mercury reduction is achievable, especially with the type of control technology configuration that we're talking about at Merrimack Station. The fact that it has an ESP at ... the fact that it has

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an SCR, like Bob Scott said, in fact it does, the SCR, the NO_x rule does lead to a more oxidized form of mercury; well that actually helps the scrubber. The scrubber likes ... can actually be more efficient if what's coming through it is a more oxidized form.

You know, I do have to make one clarification related to this eighty percent reduction, and Joel Harrington mentioned that there's ... the devil is in the details of these other state bills. I ask you to look how this eighty percent is calculated. The way this bill is structured it's an eighty percent reduction from the coal input numbers going into this plant. If they did nothing today, they're half way there. They could do nothing and because of ESP that's already there. And I think that that's actually a good thing to reward PSNH for the hard work that they've already done with the ESP that they have installed and the other controlled technologies that they have in place, they should be rewarded for those efforts that they've done in the past. If no scrubber went on today, they'd be half way to the eight percent because it's based on a coal input number. It's not based on ... the early mercury credit reduction component is based on reduction at the stack. But when we're talking about eighty percent we're talking about looking at coal input numbers and than an eighty percent reduction from that. That means what they're getting currently with the ESP already counts towards that eighty percent.

The AMC proposal retains the flexibility of early mercury reduction banking which the source can than use towards meeting the eighty-five percent that we propose. So we're not saying, you know, we agree that they need some flexibility, they need to be able to use banking to potentially meet that to provide them some more certainty. The AMC proposal looks to offset the cost of the wet scrubber through a simple expansion of the current incentives under the existing RSA 125:0 passed by this Senate. We agree with others that we need economic incentives to make this bill work, to bring Merrimack Station into compliance with the sulfur reduction goals of the 2001 New Hampshire Clean Power Act. However, we're very concerned that the current incentives set a very poor precedent. If other states adopted any flavor of what is proposed in HB 1673 related to the incentives, which is exchanging unrelated pollution credits, New Hampshire would suffer because we are downwind of many sources. So even if a state were to do that within that state's boundaries, not even participate in the federal market, if they decided to do this trading of different credits we would suffer from that because we are downwind of a lot of upwind pollution sources.

In addition, the approach amounts to a problematic creative accounting for the years when PSNH has met its federal cap allotment through existing incentives. Currently their existing incentives on the books, as

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soon as that scrubber goes in they are going to get some mercury, excuse me, some SO₂ credits for that reduction which is currently on the books. That's great. But they're limited by the federal cap up to twenty thousand. That's as much as they can get in one year. What they've done is basically an inappropriate way to accumulate this credit currency during these years they've maxed out and just calling it another name. They're calling it a mercury credit because they can't call it a SO₂ credit in that year. Okay? Furthermore, the mercury to sulfur transfer significantly undermines the current state sulfur cap weakening state law. I would agree with one of the previous speakers. Instead of this path of weakening and poor precedent, we offer a simple extension of current incentives. Okay? Which reward on-site sulfur reductions with sulfur credits. Okay? The current on the books incentives work towards when that scrubber goes in and they get major reductions than they're going to get some sulfur credits for that on-site activity. Because, you know, they could choose with the new sulfur cap of seventy-two hundred to just buy their way, if that was economically feasible, down to that cap level; or they can choose to control what the previous Clean Power Act did which was to try to incentivize that on-site reduction, which is a good thing. Let's expand that, it's going to work.

AMC recognizes that PSNH has stepped up to try mercury control technology before the compliance date by obtaining Department of Energy funding, and we urge you to maintain the level of mercury captured achieved through this technology until the scrubber is installed.

I've also included some handouts within my package. It's basically the one pager and two handouts I'd like to go over with you briefly.

Please see handouts submitted by Ms. Georgia Murray, AMC Staff Scientist, "Proposed Changes to HB 1673," "PSNH Merrimack Station," and "Estimated Annual SO₂ Allowances Needed by PSNH," attached hereto and referred to as Attachment #13.

I tried to estimate the cost to ratepayers from the capital costs of this scrubber going in, using the capital costs numbers provided in HB 1673, and then adjusting that capital cost, total monthly cost to average ratepayers down after accounting for the annual allowance savings due to the scrubber installation. What we're talking about is that twenty-six million dollars a year. As soon as that scrubber goes in, that's the savings. So you're adjusting down from about four dollars a month cost to ratepayers due to compliance to a dollar forty-four. Then, if you include the actual on the books bonus allowances, we're down to sixty-seven cents a month, on average, to ratepayers. And that's spread out over a ten year window. If you look at the incentive currently in HB

1673, this mercury to SO₂ incentive you could get back down a little further to forty-two cents. Now we're only going to cost forty-two cents a month for the ratepayer for compliance with this program. dac

My program looks to replace that value. It looks to expand those incentives; it also looks to incentivize earlier installation of that scrubber, and it's an equivalent level by incentivizing that. So the second piece is the graph. This is really a great way to see how the current envelope incentives work. In 2006, here we are before the Clean Power Act new cap goes in. This is my estimate of how much, how many SO₂ allowances they're going to need. And you can multiply this number by about a thousand dollars to get the actual total annual cost. When the 2007 cap goes into effect, that number is going to jump way up because now they're under a tighter cap, they need more SO₂ allowances to comply with the new law.

Well soon after that, in 2008 and further out, the current on the books SO₂ incentives start buffering that cost. So all I'm talking about is taking those current incentives and expanding those to the same level of what the incentives in HB 1673, the same level value of what's currently in this bill.

This graph also shows ... the different lines are showing different compliance dates basically, under my proposal and under HB 1673 as currently proposed. And basically I want you to focus on the cost, or basically the need, the numbers and the need, and again, just multiply that through by one thousand for simplicity. I checked this morning and actually SO₂ allowance costs were around nine hundred dollars.

Senator Bob Odell, D. 8: Yeah. I think you've over gone your time, so let's move it right along.

Ms. Murray: Okay. So, the earlier we reduce the need for these SO₂ allowances, in other words, the earlier this is installed, the huge difference to ratepayer is that difference in cost from that avoided SO₂ allowance needs. So the earlier we can get this on, the better for the ratepayer, the better for PSNH as well because now they do not have to go out and get these SO₂ allowances.

So, in closing I would like to say I'm not asking for perfect. I'm not asking for another year's study. I'm asking for incremental improvements to get the most out of this process for New Hampshire citizens.

Thank you for your time.

Senator Bob Odell, D. 8: Thank you for your testimony. Any questions? Seeing none, thank you very much.

Senator Robert K. Boyce, D. 4: Mr. Chairman, in the future when someone asks to be bumped ahead of the rest to facilitate their own schedule in getting home, maybe they ought to consider the time of the people that are behind them. Thank you.

Senator Bob Odell, D. 8: Thank you for your comments. I will say that the Committee is going to vote on this bill tonight and that we do not have the option of not voting on it tonight. This is our deadline day to day. So we will be here for the duration and we will get through this. So, with that, I'm going to step out for a second and Vice Chairman Letourneau is going to, he didn't know it, but he's going to take over.

Senator Robert J. Letourneau, D. 19: Don McGinley.

Mr. Don J. McGinley, Legislative Representative, New Hampshire Wildlife Federation: Thank you Mr. Chairman.

Senator Robert J. Letourneau, D. 19: You're welcome.

Mr. McGinley: Good afternoon.

Senator Robert J. Letourneau, D. 19: I know you've waited a long time.

Mr. McGinley: I apologize, Senator, for all the misspellings I've made of your name, as well.

Senator Robert J. Letourneau, D. 19: You're not alone.

Mr. McGinley: Good afternoon. Maybe I guess good evening Mr. Chairman and members of the Committee. For the record, my name is Don McGinley. I'm a citizen of New Hampshire. I reside in the town of New Boston.

I'm here representing the New Hampshire Wildlife Federation (NHWF) as a non-paid member of their Board of Directors. We represent over ten thousand sportsmen through a combination of individual memberships and over forty-five affiliated sporting clubs. We care dearly about the environment; we don't just care about fish and birds, although they're very important.

Please see prepared testimony of Mr. Donald J. McGinley, Legislative Representative, New Hampshire Wildlife Federation, attached hereto and referred to as Attachment #14.

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I want to first emphasize that I have no expertise in power generation technology, nor the details of mercury and sulphur dioxide pollution. At the same time, I worked for over thirty years in the very competitive computer and internet working industry where overly conservative schedules were never tolerated, yet high quality product was always required and usually delivered. I see no reason why PSNH should not strive in the same manner to reduce pollution to our citizens of New Hampshire, the ratepayers who will bear the costs resulting from this bill in any case.

While the New Hampshire Wildlife Federation agrees with most of HB 1673's content, we seriously question the following three items, and I'll be very quick.

1. The summer of 2005 carbon injection mercury test results were to be published prior to year-end as part of the "retained" SB 128 commitment by PSNH and by the legislature. New Hampshire Wildlife Federation has yet to see any publication of results, good, bad or indifferent. I think the truth should be told to the ratepayers and public in New Hampshire. As part of your review, we ask that a public explanation be made as to what occurred with testing of the subject technology that is no longer considered within HB 1673.
2. The 2013 date for scrubber installation is too conservative. We know the Clean Power Coalition has presented strong arguments in favor of a 2011 date. We understand, as you've just heard, the Appalachian Mountain Club which we hold in high regard for their technical capabilities, believes that 2013 is far too conservative. The EPA reports show that scrubber installs not unlike the Bow Power Station can be accomplished in forty months, three and a half years with their permitting process requiring less than an extra year. We think it unwise that 2013 be your accepted date when our environment and population is under such an extreme mercury and sulfur dioxide attack. If the states of Pennsylvania and Georgia, and Maryland, as Representative Phinizy described, have commitments to cut mercury by 2010, why is New Hampshire requiring three extra years? As such, the New Hampshire Wildlife Federation recommends that you seriously consider improving upon the 2013 date, at least to mid 2011, that's five full years, hence.
3. The New Hampshire Wildlife Federation disagrees with any use of mercury conversion to sulfur dioxide allowances as specified in this bill. We suggest you eliminate the "mercury conversation to

sulfur dioxide allowance incentive." We agree with AMC's assessment that "inter-pollutant trading is a bad precedent for New Hampshire to set," and we believe New Hampshire's citizens would say exactly the same thing.

We urge the Committee to report HB 1673-FN as "Ought to Pass" only after addressing these issues.

Thank you very much for your attention and my ability to testify today.

Senator Robert J. Letourneau, D. 19: Questions from the Committee? Seeing none, thank you.

Mr. McGinley: Thank you very much.

Senator Peter H. Burling, D. 5: Mr. Chairman, I do have one question.

Senator Robert J. Letourneau, D. 19: Oh you do?

Senator Peter H. Burling, D. 5: One very brief question. To the extent that we have seen a group of citizens basically vote themselves for almost a year to the search for a compromise, which might get a bill that would move forward, do you think that we as Senators have any obligation to give power to that compromise when it's finally reached?

Mr. McGinley: I'm probably not a very good person to answer that question. All I really want to say today, very clearly is that I believe you have the power to improve upon the date 2013 as a reasonable date. Okay? Include a more reasonable date in that legislation.

Senator Peter H. Burling, D. 5: And would you believe me if I said that if I don't, it is because I have real worry that changing the compromise may cause the whole thing to crumble and disappear?

Mr. McGinley: I believe that if a little bit more time is required, in terms of a little bit more time, I mean maybe a month. Legislature is in session until the end of May. I believe that time should be taken by this Committee and by the legislature.

Senator Bob Odell, D. 8: Let me just point out, because I was going to mention this a little later on. The reason this building has worked for two hundred years is because we have very strict rules of operation and there is a bunch of ... many deadlines that come along. And, the deadline for us is that we receive this bill from the House on what's called "cross-over" day deadline ...

Mr. McGinley: Yes.

Senator Bob Odell, D. 8: And we didn't have very much time to deal with it. We also respected the work that had been done in the House. Or at least I, as the Chairman, I can say that.

Mr. McGinley: As do I.

Senator Bob Odell, D. 8: And so when it comes to us, for us to open this up because there are people that either overtly or covertly would like to see this thing go away in its entirety. That if that's the risk that some would like us to take, that's a risk I'm not willing to take. And that's why the idea of having this around for another month, number one it's got a fiscal note on it, this will go to the Finance Committee after it passes the floor of the House, if it does that. I mean, Senate, if it does that. So there are other steps in the process and we will be here for another month, but this is one of the issues that we have to face because of deadlines. We play to those deadlines. We do the best we can, but I must caution that there are people who would prefer to see this go away entirely.

Mr. McGinley: I understand that. And I'm certainly not one of those people and the New Hampshire Wildlife Federation is not an organization that wants that to happen. However, I do ... New Hampshire Wildlife Federation would like to see some level of improvement or incentive to improve, over and above what's in the context of the bill today. That change would be a very simple amendment to the bill.

Senator Peter H. Burling, D. 5: You mentioned the word "incentive." And you heard me because you were in the wrong choir of PSNH whether they were willing to fulfill the promises that they've made to other Senators. Are you telling me you discredit what they've said they will do?

Mr. McGinley: Absolutely not, but what I heard very clearly today is that one has been put on the table and one is included in 1673 is reasonable, and is reasonable, and is reasonable. I take that and I saw a thread through the bill of being rather conservative. I hate to be conservative when it comes to pollution that these toxins are causing for our citizens.

I think maybe if we were sitting here a year ago with this same bill, and a date of 2012 versus 2013 was put on the table, most of the organizations that fail to support this bill would be high against 2012. I would invite the Committee to put a date of 2012 in simply one year in advance of what that very reasonable and conservative goal is stated in the bill.

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Senator Bob Odell, D. 8: Okay. Any more questions? Seeing none, thank you very much.

Mr. McGinley: Thank you very much.

Senator Bob Odell, D. 8: I'll call on Mr. Stephen Perry, New Hampshire Fish and Game Department.

Mr. Stephen Perry, New Hampshire Fish and Game Department: Thank you Mr. Chairman, members of the Committee.

Senator Bob Odell, D. 8: Good evening.

Mr. Perry: I'll be very brief. For the record my name is Stephen Perry. I serve as Chief of Inland Fisheries Division from New Hampshire Fish and Game Department. The New Hampshire Fish and Game Department supports HB 1673 because mercury in the environment poses human health risks and it bio-accumulates in fish and wildlife resulting in sub-lethal and lethal effects.

Please see prepared testimony of Mr. Stephen Perry, New Hampshire Fish and Game Department attached hereto and referred to as Attachment #15.

With that I'll end my testimony and take any questions.

Senator Bob Odell, D. 8: Thank you very much for your testimony. Any questions? Seeing none, thank you very much for being here. I'll call on Richard Smith, New Hampshire Bass Federation.

Mr. Richard D. Smith, New Hampshire Bass Federation: I'm going to be mercifully brief. (Laughter).

Senator Bob Odell, D. 8: You'd be eternally (laughter) (inaudible). Come back often. (Laughter).

Senator Robert J. Letourneau, D. 19: Staying longer, say less.

Mr. Smith: For the record though I do have to say my name is Richard Smith; citizen of New Hampshire. I live in the village of Hancock. I'm here representing New Hampshire Bass Federation. I'm here as a non-paid director of conservation.

I'm here because our favorite fish is very much involved. (Laughter). We're often at the top of the food chain.

Nobody disputes that we need to do something, and we're counting on your wisdom, all you Senators. We ... as much as we respect that wisdom, we realize that you can't be scientists and engineers in a very short period of time. I appreciate the fact that this is really been thoroughly (inaudible) over two years. With a lot of expert testimony of engineers, scientists, the whole works, we feel this bill as written is reasonable. And we like the fact that there are, in fact incentives here to start the process which I think is valid.

So, we just want to be on record and let you know that. I end with a little quote from Chief Seattle, it's attributed to Chief Seattle and that is that, "You did not weave the web of life, we're merely a strand. And whatever we do to the web, we do to ourselves."

Thank you very much.

Senator Bob Odell, D. 8: Thank you very much. Any questions other than the best fishing questions? (Laughter). Senator Letourneau has an interest in that!

Senator Robert J. Letourneau, D. 19: Just a comment. Your favorite fish, but you don't eat them.

Mr. Smith: No we don't. We pretty much catch and release the best fishing community. However, we feel a family should be able to come to New Hampshire, vacation, catch fish and enjoy a meal without having to worry about it. We'd love to see the day when we no longer have fish consumption advisories to the great State of New Hampshire.

Senator Robert J. Letourneau, D. 19: Thank you very much.

Senator Bob Odell, D. 8: Thank you very much.

Mr. Smith: You're welcome.

Please see prepared testimony of Mr. Richard Smith, New Hampshire Bass Federation attached hereto and referred to as Attachment #16.

Senator Bob Odell, D. 8: I'll ... this is going to be a little risky for me, but I'm going to say that "Dorsaka Porrins" from Concord has signed in, in favor of the bill, but does not wish to speak. And then, Kay Tattersale (?) has signed in, in favor of the bill, but does not wish to speak. Jason Stock from the New Hampshire Timberland Owners Association signed in, in favor, but does not wish to speak. David Micciche from Amherst signed in, in opposition, but does not wish to speak. William Klapproth signed in, in favor, but does not wish to speak. Ann Ross of the Office of

Consumer Advocate signed in, in favor, but does not wish to speak. Linda Rauter has spoken ... has signed in on her own behalf and then it says, "with strengthening of amendment," and does not wish to speak. Jane Doherty from the Environmental Responsibility Committee, Episcopal Diocese, and some other things, can't read all the words.

Senator Robert J. Letourneau, D. 19: Wasn't enough paper for you, right?

Senator Bob Odell, D. 8: Yeah, I know we need a bigger block. Good afternoon. Welcome.

Jane Doherty, Environmental Responsibility Committee, Episcopal Diocese: Good afternoon Mr. Chairman and the rest of the Committee. I will be very brief because I am representing what we call the Environmental Responsibility Committee of the Episcopal Diocese of New Hampshire. And I am in, we are all very much in favor of the bill and I also was involved and testified last year, and this bill is so much better that it's incredible actually. Many good things have been said this afternoon that, if they haven't been said, we have to say it. But I want to make the point that you, Senator Odell, I do not want to see this bill go down. Our Committee does not want to see the bill go down. And so much good work has been done. We could fine tune it, but we haven't got ... we don't know what will happen if we try to fine tune it. You know more about the politics than I do, but I've heard it may disappear if we fine tune it. And there are already many good aspects and there are some accountability amendments added by the House to which are very good, you know, to ask Public Service to report back.

Now there are several things I want to add. And this is ... it was referred to, but you didn't see a copy. It's too bad we don't all have a copy, "Mercury Connections," it comes from BioDiversity Research Institute and it is a compilation of seventeen scientific articles on mercury in the environment in the northeastern United States. And, some of the facts you heard are in here, but what I wanted to point out is something that didn't come up, exactly. This is under, on page 19, and it says, "What is a hot spot and how is it measured?" I won't go into all of that, but the scientist measured the concentration of mercury in fish, loons, bald eagles, mink and river otter and then generated a map of the hot spots in the northeastern United States. Most of them did not show any lead to a particular source. When reference to your worry about where it's coming from, however this is here in black and white. If you want, you can have somebody Xerox it for you. The two exceptions are the biological hot spots near large point sources in southeastern New Hampshire and a defunct chlorine factory in Orlington, Maine. And the researchers, the

reference for the research is given for both those reports. So that's something I wanted you to know.

So being downwind in the southeastern part has been scientifically established that it's related to the Bow Plant. Another thing that's in here is that they're now finding mercury in insect eating forest birds. So the influence of mercury in the wildlife is going far beyond what we expected. So that's another important thing.

Now my last point is just a funny one, but not so funny. We did have somebody who objected to the time lines and gave a lot of construction experience. Unfortunately for him, my daughter lived next to the big dig. (Laughter.)

Senator Robert J. Letourneau, D. 19: I was going to bring it up. (Laughter.)

Ms. Doherty: I would never in my life, if I were a professional engineer mention the central artery (laughter) because it certainly wasn't timely nor did it even work.

Senator Robert J. Letourneau, D. 19: There's just a few cost overruns.

Ms. Doherty: That's all I wanted to say.

Senator Bob Odell, D. 8: Well; thank you Ms. Doherty for being here. Any questions? If not, thank you very much.

Ms. Doherty: You're welcome.

Senator Bob Odell, D. 8: And I'll call Pam Kelly from New Hampshire Faithful Democracy.

Pam Kelly, New Hampshire Faithful Democracy, New Hampshire and Vermont Districts, Unitarian Universalist Social Responsibility: Can I seed my time to Catherine Corkery? Right now, because what I have to say is very short.

Senator Bob Odell, D. 8: Go ahead and say it.

Ms. Kelly: All right. I'm from New Hampshire Faithful Democracy. It's the network of Unitarian Universalist Churches bound together. I have a written testimony I can give you.

Please see written testimony of Pam Kelly, New Hampshire Faithful Democracy attached hereto and referred to as attachment #17.

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But I noticed that you all, all men, may not be as aware as women of how to save money. I mean we are just shopper experts is what I want to say. So I've noticed that you're like not paying too much attention. But the important thing I want you to know ...

Senator Bob Odell, D. 8: Let me just back up a little bit.

Ms. Kelly: Okay. (Laughter.)

Senator Bob Odell, D. 8: No I just want to make a comment.

Ms. Kelly: Umhm.

Senator Bob Odell, D. 8: I was in a Committee meeting the other day and things got out of hand with comments like that.

Ms. Kelly: Okay.

Senator Bob Odell, D. 8: Understand that there are several Committee meetings going on parallel to this.

Ms. Kelly: Yes.

Senator Bob Odell, D. 8: Most of us started anywhere from 7:30 a.m. to 8:00 a.m. this morning.

Ms. Kelly: My apologies.

Senator Bob Odell, D. 8: I want you to know that people here work very, very hard. They're all volunteers. They try to do the best job.

Ms. Kelly: Yes sir.

Senator Bob Odell, D. 8: So when we don't look as if we're attentive, please know we're professionals that are learning while we're doing many monthly tasks, so I ...

Ms. Kelly: Okay.

Senator Bob Odell, D. 8: I caution.

Ms. Kelly: I'm just teasing you really. I think the message that has been brought forward is that we could save money here. We could save money if we get it done early because construction costs are less, we could save money because we're not paying those sulfur dioxide trading

costs of up to twenty or thirty million a year. So if we're interested in supporting the ratepayers, this might really be something to pay attention to.

And from the Unitarian Universalist point of view, as people of faith, we have seven principles, one of which is to affirm and promote respect for the interdependent web of existence of which we're a part and this would improve our ability to meet those expectations because the faster they clean up the better. And mercury if we try trading mercury, we're not actually benefiting the state, we're undermining our ability to clean up the mercury waste.

So we urge you to represent the people of New Hampshire, not just institutional interests, but we urge you to vote your conscious for the long time interests of us all. We're all a part of this interdependent web. We're linked into a global community through thin life supports to the blue planet of which we're a part. We ask you to think beyond the quarterlies, to the quarter centuries and protect our health, our air and water, which is the real long-term interest bearing account with compounding interest that we'll benefit from in the long run.

So we ask you to look at your conscious and vote your conscious and we really do appreciate your work, your long term work, your hard work over a long period of time and over a long day.

Senator Bob Odell, D. 8: Thank you for your comments. Senator Burling?

Senator Peter H. Burling, D. 5: I'd like to simply make a comment. I've been a minority member of this legislature for sixteen years. I've been in public life as a democrat for thirty years.

Ms. Kelly: Yes sir.

Senator Peter H. Burling, D. 5: I've been trying to do exactly what you exhort us to do.

Ms. Kelly: Umhm.

Senator Peter H. Burling, D. 5: And every day of my public life, sometimes I have to accept less than everything I want.

Ms. Kelly: Umhm.

Senator Peter H. Burling, D. 5: In order to get anything of value.

Ms. Kelly: Umhm.

Senator Peter H. Burling, D. 5: This is one of those times. And the fact that we are all of the masculine persuasion up here is an accident of Committee assignment, not a cabal or consortium to suppress the interests of women in the environment. I really am profoundly upset by what you said.

Ms. Kelly: All right. I'm sorry about that.

Senator Peter H. Burling, D. 5: And I just want you to know that because I got up at 6:00 o'clock to come down here.

Ms. Kelly: Umhm.

Senator Peter H. Burling, D. 5: As I do every morning.

Ms. Kelly: Yes sir.

Senator Peter H. Burling, D. 5: Thank you for your input.

Ms. Kelly: Okay. Well I appreciate your ...

Senator Bob Odell, D. 8: Any questions? Seeing none, thank you very much. I'll call on Catherine Corkery.

Catherine Corkery, New Hampshire Sierra Club: Thank you Mr. Chairman and Committee members.

Senator Bob Odell, D. 8: Good afternoon.

Ms. Corkery: I appreciate your time to listen to all the testimony and I understand the time pressure you're under, and I ask ... I won't read over my testimony because I know ... but I would like to point out a few, sort of highlights that we've heard from the testimony, namely, the ... Well, firstly the inter-pollutant trading component of the bill. No other state has gone this route of trading apples for oranges. The STA when the Clean Power Act was first being debated, I was there and I heard the discussion of trading apples to oranges and how the intent of the bill was not to do that, but to instead keep our sulfur credits and our other credits as they are concerning their own pollution.

Please see prepared testimony of Ms. Catherine Corkery, New Hampshire Sierra Club attached hereto and referred to as Attachment #18.

This bill does exactly ... does not do that at all. It provides a mechanism where the utility is able to acquire mercury credits and switch them into sulfur credits without reducing sulfur. I'm going to emphasize that. They get credit for not reducing sulfur. They get a sulfur credit for not reducing sulfur, that's what I wanted to say. Nobody in other states are able to do that and as equating a pollutant that has a method of mitigation, if a pollutant like mercury, a neurotoxin, that can harm women and children developmentally is a very dangerous thing to do. And it's very radical; it's very controversial. And no other state has done that. I wanted to emphasize that.

Secondly, I understand the time pressures and I know there's a lot of things that are going on here and there is an understandable reason to get this bill in now, but there's also an obligation to ratepayers to make sure that at the end of the day all the ideas get a fair shake. And that there is a guarantee to the ratepayers that this is the cheapest way to accomplish acceptable environmental standards with acceptable ratepayer costs. This bill that started in October of 2005, this ... the writing of this bill has not seen an economic analysis from someone outside, from a third party. And, I'm not sure if this Senate wants to carry on that sort of responsibility. And having that said, I do want to agree that I want a bill passed. I do not want to derail this bill. This is a good start and the Senate and the House have a discussion when a bill goes into the committees and I appreciate that hard work that you have to do in order to have that discussion, but it is also that it has a potentially huge impact on ratepayers and the environment, and I ask for your caution.

And lastly, I notice that you Chairman were looking at this last page, it includes all the different states that have and are dealing with a mercury reduction program; some that are legislative, some are rulemaking and some are ... one is a Governor's Executive Order, that's it. Thank you.

Please see "NH Clean Power Coalition" and "States Tackling Mercury Pollution From Coal-Burning Power Plants," submitted by Catherine Corkery, New Hampshire Sierra Club attached hereto and referred to as Attachment #19.

And, you'll see they have five year time lines that are involved with the mercury. Some of them are associated with the output of energy, other ones are associated with the control and I think Georgia did a really good job at describing the difference between reducing emissions and controlling. That's a real different sort of way to look at things. And I just hope that you get some time to look at that, and with that I will end my testimony and take any questions.

Senator Bob Odell, D. 8: Thank you very much for your comments.
Senator Letourneau?

Senator Robert J. Letourneau, D. 19: Thank you.

Ms. Corkery: You're welcome.

Senator Robert J. Letourneau, D. 19: Were you here when Chairman Ross from the House spoke and when the gentleman from New Hampshire Audubon spoke?

Ms. Corkery: I was.

Senator Robert J. Letourneau, D. 19: They talked about this almost year long process that they've gone through. Did you folks have a seat at that table?

Ms. Corkery: The language, well there were Committee hearings and work sessions throughout the summer and we attended those. There was limited access outside of the Committee room itself. We did attend some meetings, but we were informed rather than invited to negotiate in the negotiations.

Senator Robert J. Letourneau, D. 19: Thank you. One last question. The Audubon Society provided us with a similar breakdown of some of the states that have brought in Mercury and sulfur emission reductions, and they also included the caveats that were included in those. So while some of those may be shorter time frames, if they can't make the standards they're given a pass with a waiver.

Ms. Corkery: Sure, and in fact a comment to that. You're also talking about states that have more than one power plant that's being fitted. Pennsylvania, for instance, has thirty-five different power plants. Illinois, I'm not even sure how many power plants Illinois has, but when you're talking about these different caveats, they're dealing with a state-wide cap in some cases, not a plant-by-plant case. Here we're also dealing with a state-wide cap. But with those allowances they are taking a larger group of power plants into consideration.

Senator Robert J. Letourneau, D. 19: Some of which already (inaudible).

Ms. Corkery: Right, the Massachusetts one. Some of them already have ... and actually to PSNH's credit, they're half way there. They have the SCR the PS ... I forget what it's called ... all this equipment. This is like the last step. The last step to make it a very clean power plant.

rac

Senator Robert J. Letourneau, D. 19: Thank you.

Ms. Corkery: You're welcome.

Senator Bob Odell, D. 8: Any other questions? Seeing none, thank you for your testimony.

Ms. Corkery: You're welcome.

Senator Bob Odell, D. 8: And for being here. I'll call on Beth D'Ovidio?

Beth D'Ovidio, American Lung Association of New Hampshire:
D'Ovidio. Very good.

Senator Bob Odell, D. 8: D'Ovidio. Practicing. Good afternoon.

Ms. D'Ovidio: Good afternoon, Mr. Chairman, Senators. For the record my name is Beth D'Ovidio. I'm representing the American Lung Association of New Hampshire and I do have a letter to, copies to give to each of you.

Please see prepared testimony of Daniel Fortin, President and CEO of the American Lung Association of New Hampshire, submitted by Beth D'Ovidio, American Lung Association of New Hampshire attached hereto and referred to as Attachment #20.

Earlier on in the day, we have heard some testimony about asthma in the state and we felt that we would be remised to our mission if we did not let you know of our support of this legislation as it is written. I'll try to be very brief.

We know that the scrubber technology is reputed to result in the decrease of at least ninety percent of the sulfur dioxide emissions caused by power plants.

And the major health impact of sulfur dioxide is on population groups especially susceptible to the pollutant's effects because of pre-existing conditions, especially asthma. And our mission is to assist those living with lung disease to breath easier and breath longer and we feel that the passing of this bill will assist in that.

Senator Bob Odell, D. 8: Thank you very much.

Ms. D'Ovidio: Thank you very much.

DAC

Senator Bob Odell, D. 8: Any questions? If not, thank you.

Ms. D'Ovidio: Thank you.

Senator Bob Odell, D. 8: Elizabeth Skipper signed in on behalf of herself, supports with recommendations to strengthen it, but does not wish to speak. Anne Arsenault signed in, in favor of the bill but does not wish to speak. John Tuthill signed in, in favor and wishes to speak, favors the amendment to strengthen. I think I don't see John, okay. Michael Giaimo to speak in favor.

Michael S. Giaimo, Business and Industry Association of New Hampshire (BIA): Good afternoon.

Senator Bob Odell, D. 8: Good afternoon.

Mr. Giaimo: Michael Giaimo I'm with the Business and Industry Association and they are ... in my employment there I'm Vice President for Energy and Environmental Affairs.

BIA appreciates the opportunity to lend our support to HB 1673. I certainly will be as brief as possible. First and foremost, the BIA supported HB 284 four years ago. The bill that I'm referring to is, "The New Hampshire 4 Pollutant Bill." This legislation, HB 1673 brings fulfillment to that legislation, and for SO_x, NO_x, CO₂ and mercury legislation. So it brings a ... it makes a bill that's a theory, a reality. It will significantly minimize sulfur and mercury pollution. It does so with minimal rate impacts. It is a reasonable piece of legislation with realistic and achievable time limits and pollution limits.

In conclusion, HB 1673 is a cost-effective and maybe the most cost-effective way of controlling plant emissions. So with that I'd be happy to take any questions. I have written testimony. I'll submit it to the clerk and pass them around.

Senator Bob Odell, D. 8: Please.

Please see prepared testimony of Michael S. Giaimo, Esquire, Vice President, Energy and Environmental Affairs, Business and Industry Association attached hereto and referred to as Attachment #21.

Senator Bob Odell, D. 8: Thank you very much. Any questions? Seeing none, thank you very much for being here.

Michael Giaimo, Esquire: Thank you.

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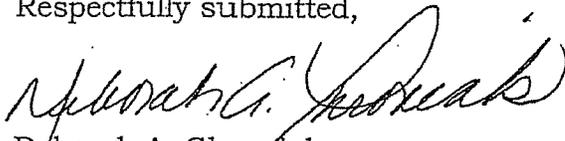
Senator Bob Odell, D. 8: Mr. Will Abbott was here to speak in behalf ...
and I don't see Will ...

Unidentified Speaker: I think he left.

Senator Bob Odell, D. 8: Okay. And we have Paul Doscher has signed
in, in favor of the bill representing New Hampshire Council of Trout
Unlimited, but does not wish speak. And with that, we have concluded
our Public Hearing and I'll close that hearing on HB 1673.

Hearing concluded at 6:00 p.m.

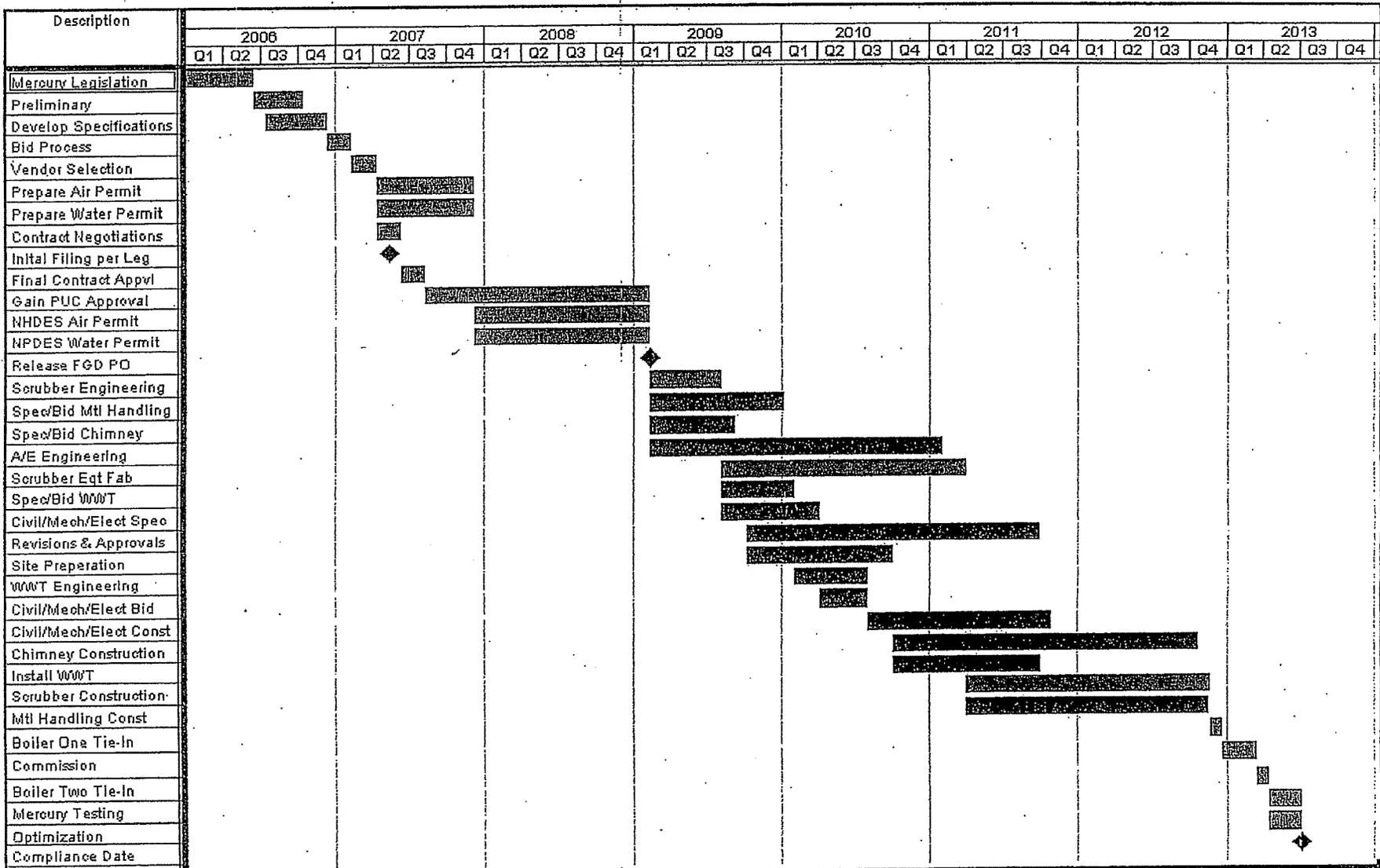
Respectfully submitted,



Deborah A. Chroniak
Senate Secretary
September 19, 2006

21 Attachments

Merrimack Station – Unit 1 and Unit 2 Scrubber and Auxiliary Systems schedule



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ATTACHMENT # 1



JOHN H. LYNCH
Governor

State of New Hampshire

OFFICE OF THE GOVERNOR

107 North Main Street, State House - Rm 208
Concord, New Hampshire 03301
Telephone (603) 271-2121
www.nh.gov/governor
governorlynch@nh.gov

ATTACHMENT #2

April 11, 2006

The Honorable Bob Odell
Committee on Energy and Economic Development
Room 102, Legislative Office Building
Concord, NH 03301

Dear Chairman Odell and Honorable Committee Members:

On behalf of Governor Lynch I am very pleased to speak in support of House Bill 1673. The time has come to clean up the sources of mercury pollution in New Hampshire.

Nearly every water body in New Hampshire is subject to a mercury advisory cautioning vulnerable populations not to consume freshwater fish because of the potential damage to the developing brains of fetuses and young children. Mercury pollution is a public health issue and an economic health issue for our state.

New Hampshire continues to fight the weakening of federal rules that will relax national mercury standards and we continue to work to provide adequate and safe disposal of mercury products in New Hampshire. We must now pass legislation to reduce the sources of this pollution here in New Hampshire.

The legislation before you has the potential to maximize mercury reductions and reduce sulphur pollution from our coal-fired power plants. This approach has far-reaching benefits for the health of New Hampshire citizens.

Mercury reductions must be meaningful, timely, affordable and achievable. HB 1673 achieves these goals and we should unite to pass mercury emissions reduction legislation now.

Thank you very much for your consideration.

Sincerely,

Alice Chamberlin

Alice Chamberlin
Special Assistant for Policy

NEW HAMPSHIRE
LAKES



ASSOCIATION

New Hampshire Lakes Association

5 South State Street • Concord, New Hampshire • 03301-3723

telephone 603-226-0299

fax 603-224-9442

www.nhlakes.org

info@nhlakes.org

April 11, 2006

ATTACHMENT #3

Senator Bob Odell, Chair
New Hampshire Senate
Energy and Economic Development Committee
Legislative Office Building, Room 102
Concord, New Hampshire 03301

Subject: HB1673 Relative to the reduction of mercury emissions

Dear Chairman Odell and Members of the Committee:

Thank you for the opportunity to testify in support of House Bill 1673, relative to reduction of mercury and sulfur dioxide emissions through the installation of wet scrubber technology. As an organization with 145 lake association members, New Hampshire Lakes Association represents over 15,000 lake enthusiasts and is dedicated to protecting our public waters for everyone's responsible use and enjoyment. NHLA supports HB 1673 as it addresses the need to remove harmful oxidized mercury emissions from coal-burning power plants, specifically Merrimack Power Station Units 1 and 2 in Bow, NH.

Over the past 12 months, NHLA has actively participated in a joint effort to develop this comprehensive bill with the hope that once passed, HB 1673 will significantly reduce mercury emissions by at least 80%. In addition, the bill creates the added benefit of removing sulfur dioxide and other emission particulates thereby improving the overall air and water quality in New Hampshire. It is important we act now, as our lakes and ponds are already burdened by high levels of mercury. Our public waters garner \$1.8 billion annually for our state's economy through boating, fishing, swimming, drinking water, and waterfront taxes. However, fishing licenses throughout the state are on a steady decline due in some part to fish consumption advisories from mercury contamination. If this trend continues, we stand to lose up to \$350 million annually.

New Hampshire Lakes Association (NHLA) supports HB 1673 as the most scientifically proven way to reduce oxidized mercury and sulfur dioxide emissions from the Merrimack Power Station, thereby improving human health and the overall health of our public waters. Please vote *ought to pass* on HB 1673. Thank you.

Sincerely,

Jared A. Teutsch
Environmental Policy Director

Officers

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The State of New Hampshire
Department of Environmental Services



Michael P. Nolin
Commissioner

April 11, 2006

The Honorable Bob Odell, Chairman
New Hampshire Senate
Energy and Economic Development Committee
Legislative Office Building, Room 304
Concord, New Hampshire 03301

ATTACHMENT # 10

Re: HB 1673 - An Act Relative to Emission Reduction Standards as Required by the Clean Power Act

Dear Chairman Odell and Members of the Committee:

Thank you for the opportunity to provide testimony in support of HB 1673, which seeks to reduce mercury emissions from affected fossil fuel burning power plants within New Hampshire. HB 1673 is the result of several months of discussions between Public Service Company of New Hampshire (PSNH), DES, the Office of Energy and Planning, the New Hampshire Governor's Office, interested members of the General Court, and environmental advocacy organizations. DES's goal in these discussions was to seek aggressive levels of mercury reductions while minimizing cost impacts on electrical ratepayers. This bill achieves these goals, *and* provides additional environmental co-benefits of reduced local sulfur and particulate emissions.

While DES can appreciate the concerns some have expressed for greater reductions in a shorter timeframe, we remain steadfast that this bill represents a thoughtful balance of environmental and economic concerns. It delivers significant, yet practicably achievable reductions in a reasonable timeframe, and includes meaningful incentives for additional reductions beyond the bill's specified minimum and/or early action to reduce emissions. Eliminating flexibility in the required reductions and schedule will do little to provide actual environmental benefit, and yet may be detrimental to project financing. We believe this package of an aggressive, yet realistic reduction target /schedule and economic incentives achieves our goals for meaningful environmental benefit, maintaining electricity supply stability, and reducing financial risk and subsequent ratepayer impact.

If passed, this bill will be technically challenging to implement because the existing configuration of the boilers, stacks, and air pollution control equipment at Merrimack Station does not easily lend itself to installation of additional equipment. Due to physical constraints, installation of additional equipment to optimally reduce mercury emissions would require major renovations. PSNH has worked hard to find creative solutions to these issues so that operations can be maintained while constructing and testing the required control equipment. We feel that 2013 represents a practicably achievable goal given these constraints. The specified technology has the potential to achieve reductions well beyond the minimum requirement of 80% from all affected sources (including PSNH's Schiller Station units). However, the bill contains significant incentives and safeguards to ensure higher reductions if achievable.

This bill ultimately results from the requirements of HB 284 (passed in the 2002 session), commonly referred to as the New Hampshire Clean Power Act. In accordance with the requirements of RSA 125-O (as established by HB 284) the "Multiple Pollutant Reduction Program", the New Hampshire Department of Environmental Services (DES) made a recommendation to the Legislature on March 31, 2004 to place a cap on mercury emissions from these facilities. In response, last year, the NH Senate passed SB 128 which contained similar mercury reductions as those contained in HB 1673.

During committee hearings in both the Senate and in the House, the public outcry and the expert testimony for controlling mercury emissions from our state's coal-fired power plants sent a clear message that significant mercury emission reductions must be made. There were questions, however, as to how best to accomplish this task. Over the summer, PSNH in consultation with DES, performed tests with carbon injection control technology and researched the facility's ability to install wet scrubber technology. The results of this work led to the conclusion that while carbon injection can produce quick mercury emission reductions, the installation of the wet scrubber technology produces superior environmental benefits at a lower overall cost.

In order to best protect our citizens and environment from excess mercury emissions and to address the biological "hot spots" documented to exist within our state, we feel a successful mercury bill must meet three goals. First, it must reduce emissions as quickly as possible. Second, the chosen technology used must achieve the greatest mercury reduction technically feasible. And third, the technology must be implemented in a way that maintains our electrical reliability and affordability, without shifting production to upwind states.

HB 1673 meets these goals with the creative use of incentives and the aggressive application of technology. Early reduction will be achieved through additional testing of carbon injection technology with subsequent ongoing implementation on the most successful application of this technology. Critical to the success of this bill is the requirement that wet scrubber technology be installed on Merrimack Units 1 and 2 by July 1, 2013. The use of this technology not only reduces mercury very efficiently (potentially greater than 90% in most applications), but it is highly effective in removing sulfur dioxide (SO₂) and small particles. This co-benefit of reducing three pollutants simultaneously with the same equipment reduces implementation costs by allowing PSNH to significantly reduce purchasing SO₂ emission allowances. Based on data shared by PSNH, the total capital cost for this full redesign will not exceed \$250 million dollars (2013\$) or \$197 million (2005\$), a cost that will be fully mitigated by the savings in SO₂ emission allowances. Finally, while the scrubber technology has been demonstrated to achieve higher levels of mercury reductions than initially called for in this bill, the bill contains a requirement that tightens the required reduction rate to the level that is actually achieved and is sustainable by the scrubber technology. Application of the requirements in this way reduces project risks while still achieving full environmental benefits.

Further, HB 1673 is clearly more strict than the federal Clean Air Mercury Rule, that may have to be implemented here in New Hampshire with its own associated costs beginning in 2010; if no other alternative such as an enacted HB 1673 is proposed to EPA prior to November 2006. HB 1673 is consistent with state mercury programs in Connecticut, Massachusetts, New Jersey, and Indiana, as well as regional and national recommendations made by the State and Territorial Air Pollution Program Administrators and Association of Local Air Pollution Control Officials (STAPPA/ALAPCO), the Northeast States for Coordinated Air Use Management (NESCAUM), and the Ozone Transport Commission (OTC) for mercury Maximum

Achievable Control Technology (MACT). Consistent with the amended SB 128, HB 1673 does not allow trading of mercury emission credits.

DES is committed to working with the Legislature to develop a prudent course of action to further reduce mercury emissions. Should your committee members have questions or need additional information regarding these recommendations, please feel free to contact Robert R. Scott, Air Resources Division Director, at 271-1088.

Sincerely,

Michael P. Nolin, Ass't. Comm.
for Michael P. Nolin
Commissioner

cc: HB 1673 Sponsors
Senate Energy and Economic Development Committee

Overview of HB 1673:

- Owner is to install scrubber technology to remove mercury and sulfur oxides at both Merrimack units.
- Scrubber technology is one of the best commercially available control technologies for mercury and is also the superior technology for reducing SO₂.
 - Also significantly reduces sulfur trioxide, small particulate matter, and improves visibility (regional haze).
- Scrubber Technology is to be installed no later than July 1, 2013, with economic incentives to promote timely state and federal permitting, engineering, and construction resulting in an earlier in-service date.
- Minimum required mercury removal of 80% (aggregate of all coal fired units) with incentives to achieve greater removal results.
- The rate of mercury reductions achieved through the operation of the scrubber technology will be sustained in so far as the operational capability of the system allows.
 - Once higher reduction rate achieved it will be locked in via permit.
- Incentives provided for mercury reductions earlier than 2013 and as soon as the bill becomes law.
- Owner will reduce on-site mercury emissions prior to scrubber installation, employing efforts including but not limited to the announced DOE trial using Carbon Injection technology.
- Purchase, transfer or sale of federal mercury credits will not be allowed for compliance with the NH law.
- Emission reductions for mercury and SO₂ will be on-site (local).
- Continuous mercury emission monitoring (CEM) equipment to be installed upon EPA approval or recommendation of an effective technology, with stack tests performed to monitor performance prior to the installation of CEMs.
- Project installation cost expected to not exceed \$250 million (2013 dollars, \$197 today's dollars). Ongoing costs will be partially offset by no longer needing to purchase SO₂ allowances.
- Schiller mercury emissions relatively low already, and will be reduced further with operation of the Northern Wood Power Project beginning in 2006.

Incentives:

- All saleable credits in the form of SO₂ allocations, no Hg trading
- Early Reduction Credits earned for mercury reduced prior to 2013. These credits cannot be used to delay installation of scrubber technology. Incentives increase with a higher rate of credits provided for mercury reductions made sooner.
- Early Reduction Credits can be applied if scrubber technology fails to achieve 80% mercury emission control, but credits cannot be used to delay scrubber installation.
- Over Compliance Credits are issued after 2013 if and when aggregate mercury removal is greater than 80%. Incentives increase credits provided on a sliding scale, with more credits at higher levels of removal in excess of 80%.
- Credits can be banked for later use or sold in a federal trading program to reduce financial impact to customers. Given the strict NH Clean Power Act requirements, credits will be used to meet NH SO₂ limits.

New Hampshire Clean Power Coalition

**Citizens for a Future NH -Clean Water Action -Conservation Law Foundation
Granite State Disability Coalition -National Wildlife Federation -NH Rivers Council-
NHPIRG -NH Sierra Club-NH Wildlife Federation- Worldview, Ltd. - NH UU Social
Responsibility Department**

January 19, 2006

The Honorable Lawrence C. Ross, Chairman
House Science, Technology and Energy Committee
Legislative Office Building, Room 304
Concord, NH 03301

RE: HB 1673

Dear Chairman Ross and Members of the Committee:

The New Hampshire Clean Power Coalition wishes to follow-up on comments and questions raised during the previous hearing on HB 1673.¹ The original Clean Power Act passed in 2002, which HB 1673 would amend, called for aggressive reductions in mercury emissions by the imposition of an annual cap on mercury emissions from coal power plants, to be set by July 2005. RSA 125-O:3, III(c). As discussed previously, however, what started out as legislation to meet this goal, i.e. SB 128, has become legislation directed at reductions in sulfur dioxide emissions. ~~In fact, HB 1673 would significantly undermine important economic incentives~~ created in 2002 under the original Clean Power Act, and unreasonably delay installation of pollution controls.

The Committee's consideration of HB 1673 must therefore start with a thorough understanding of the mandates and economic incentives of the original Clean Power Act, and address certain fundamental issues that require further exploration before final decisions can be made about what is in the best interests of New Hampshire's ratepayers and its citizens downwind of the Bow power plant. The Coalition submits that these fundamental questions must be answered during this Committee's deliberative process:

- 1) **What economic incentives provided by the current Clean Power Act would be undermined by HB 1673 to the detriment of New Hampshire ratepayers?**
- 2) **Given these economic incentives, what is a reasonable deadline goal for the implementation of sulfur dioxide scrubber controls at the Bow power plant?**
- 3) **In the meantime, what mercury control technology is economically and technically feasible and should be installed in the near term?**

¹ The Coalition includes environmental, wildlife, consumer, health and faith-based organizations representing thousands of citizens from all walks of life in New Hampshire

installation. At this point, the number argued by PSNH is \$250 million; this number appears, however, to be stated in \$2013. A recent estimate by DES, in \$2004, is \$189 million. Moreover, EPA has projected the average costs for scrubber installation to be nearly half of PSNH's estimates. *This variation is clearly significant, and a thorough analysis of a low and high range of projected costs should be completed independently of PSNH's estimates.*

Finally, HB 1673 contains a much-discussed provision allowing the conversion of mercury credits to SO2 credits, as an additional financial incentive to install controls. It is clear, however, that the current economic incentives provide substantial value to PSNH, without the additional issues these mercury conversion credits will raise, such as the legality of converting mercury credits to SO2 credits.

2) Given these economic incentives, what is a reasonable deadline goal for the implementation of sulfur dioxide scrubber controls at the Bow power plant?

Setting a reasonable deadline goal for implementing sulfur scrubber controls should be based on a straightforward, objective determination of how long the design, permitting and construction is likely to take. Scrubber controls have been in use for many years at numerous large coal power plants across the U. S., and other industrial countries across the world. Scrubber technology has significantly advanced, and numerous engineering designs are available. In other words, PSNH would not be starting from scratch, and likely has already done some pre-engineering work to reach its estimation of projected cost. As Director Scott projected at the recent hearing, the state permitting should reasonably be completed by early 2009 at the latest, and construction completed in one to two years. The timeframe for completing the permitting process will depend to some degree on whether there is opposition from interest groups - however a well-crafted bill with acceptable provisions will likely eliminate these types of delays, allowing permitting to be completed well before 2009. A reasonable deadline goal for the implementation of SO2 controls is therefore 2010.

3) In the meantime, what mercury control technology is economically and technically feasible and should be installed in the near term?

Among the current flaws in HB1673 is the lack of a requirement to reduce mercury emissions from Merrimack Station in the next few years. Emissions from Merrimack Station are a major contributor to the hotspot of mercury contamination in southeast New Hampshire. As a result, the Committee should focus on achieving the most significant reductions in mercury pollution possible, as quickly as possible. *To argue that HB1673 accomplishes this is misinformed at best, and misleading at worst.*

The development of mercury emissions control technology is rapidly advancing, leading Massachusetts, Connecticut, New Jersey – with Pennsylvania and Illinois – to conclude that 90% control of mercury emissions by the end of this decade is a reasonable regulatory target for coal-fired power plants. PSNH took a very brief, first look at Activated Carbon Injection (ACI) this summer, and a report of this test has yet to appear before the Committee. PSNH has indicated, in vague and nonspecific terms, that this test did not go as well as hoped and therefore the emission targets and timelines in SB 128 have been proven infeasible. This Committee and the people of

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New Hampshire Clean Power Coalition

Citizens for a Future NH -Clean Water Action -Conservation Law Foundation
Granite State Disability Coalition -National Wildlife Federation -NH Rivers Council-
NHPIRG -NH Sierra Club-NH Wildlife Federation- Worldview, Ltd. - NH UU Social
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January 19, 2006

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Dear Chairman Ross and Members of the Committee:

The New Hampshire Clean Power Coalition wishes to follow-up on comments and questions raised during the previous hearing on HB 1673.¹ The original Clean Power Act passed in 2002, which HB 1673 would amend, called for aggressive reductions in mercury emissions by the imposition of an annual cap on mercury emissions from coal power plants, to be set by July 2005. RSA 125-O:3, III(c). As discussed previously, however, what started out as legislation to meet this goal, i.e. SB 128, has become legislation directed at reductions in sulfur dioxide emissions. In fact, HB 1673 would significantly undermine important economic incentives created in 2002 under the original Clean Power Act, and unreasonably delay installation of pollution controls.

The Committee's consideration of HB 1673 must therefore start with a thorough understanding of the mandates and economic incentives of the original Clean Power Act, and address certain fundamental issues that require further exploration before final decisions can be made about what is in the best interests of New Hampshire's ratepayers and its citizens downwind of the Bow power plant. The Coalition submits that these fundamental questions must be answered during this Committee's deliberative process:

- 1) **What economic incentives provided by the current Clean Power Act would be undermined by HB 1673 to the detriment of New Hampshire ratepayers?**
- 2) **Given these economic incentives, what is a reasonable deadline goal for the implementation of sulfur dioxide scrubber controls at the Bow power plant?**
- 3) **In the meantime, what mercury control technology is economically and technically feasible and should be installed in the near term?**

¹ The Coalition includes environmental, wildlife, consumer, health and faith-based organizations representing thousands of citizens from all walks of life in New Hampshire

The Coalition provides the following responses to each of these fundamental questions:

1) What economic incentives provided by the current Clean Power Act would be undermined by HB 1673 to the detriment of New Hampshire ratepayers?

To begin with, the original Clean Power Act provided a carefully negotiated set of economic incentives for the early implementation of sulfur dioxide (SO₂) scrubber controls at PSNH's coal plants. These economic incentives are structured on the federal SO₂ emission cap and trade program. Under the federal CAA, PSNH currently has an SO₂ emissions cap of approximately 29,000 tons. They emit on average 54,000 tons of SO₂ annually from 3 power plants, and therefore are *currently purchasing* about 24,000 tons/ credits per year. The costs of these credits fluctuate, from \$600 to over \$1500 per credit currently, and PSNH has therefore been *paying about \$15 million to potentially \$24 million or more annually* to meet its current obligations. (An accounting of these expenditures should be contained in filings by PSNH with the PUC.)

Starting in January 2007, the current Clean Power Act (RSA 125-O:3, III(a)) *lowers* the SO₂ cap to 7289 tons, and PSNH will then need to purchase another 21,000 SO₂ credits per year, at an *additional cost of \$13 million to \$21 million or annually until scrubbers are installed*. The Clean Power Act therefore has an economic incentive provision, negotiated and agreed to by PSNH in 2002, to help it meet the 2007 emission cap. For every ton PSNH reduces its SO₂ emissions, it will: 1) no longer need to buy a SO₂ allowance credit to meet the 7,289 cap, and 2) receive an *additional SO₂ allowance credit* to use as it pleases. RSA 125-O:4,IV (a) (2). These additional credits are capped at 20,000 per year and phase out over 3 years.

So, after PSNH installs scrubbers at the Bow plant to reduce its SO₂ emissions by 90%, i.e. from 29,800 tons to 1500 tons, PSNH will earn approximately 20,000 credits in the first 2 years, and about 10,000 credits in year 3. PSNH therefore would:

- a. no longer need to purchase about 28,000 credits per year, **saving about \$28 million per year** (assuming \$1000 per ton), and
- b. **earn an additional 50,000 credits, or \$50 million, over the next 3 years.**²

The current economic incentives therefore work to the benefit of NH ratepayers *the sooner scrubbers are installed*. And, HB 1673 will significantly undermine these economic incentives by allowing PSNH to *further delay installing scrubbers for eight more years*, until 2013. These projections will of course vary with the market value of SO₂ credits, but it is clear that PSNH, and therefore the ratepayers, will save \$ millions by reducing SO₂ emissions as soon as scrubbers are installed. *The value of these economic incentives to ratepayers is clear, and this Committee should request a thorough analysis of these economic impacts by the NH PUC.*

In addition, a complete analysis of the ultimate benefit or impact to ratepayers from installing scrubbers will require a realistic and accurate determination of the costs of scrubber

² While some portion of the credits earned will likely be used by PSNH to meet its cap obligation, the \$ value to ratepayers is the same as PSNH will no longer need to purchase credits on the market.

installation. At this point, the number argued by PSNH is \$250 million; this number appears, however, to be stated in \$2013. A recent estimate by DES, in \$2004, is \$189 million. Moreover, EPA has projected the average costs for scrubber installation to be nearly half of PSNH's estimates. *This variation is clearly significant, and a thorough analysis of a low and high range of projected costs should be completed independently of PSNH's estimates.*

Finally, HB 1673 contains a much-discussed provision allowing the conversion of mercury credits to SO2 credits, as an additional financial incentive to install controls. It is clear, however, that the current economic incentives provide substantial value to PSNH, without the additional issues these mercury conversion credits will raise, such as the legality of converting mercury credits to SO2 credits.

2) Given these economic incentives, what is a reasonable deadline goal for the implementation of sulfur dioxide scrubber controls at the Bow power plant?

Setting a reasonable deadline goal for implementing sulfur scrubber controls should be based on a straightforward, objective determination of how long the design, permitting and construction is likely to take. Scrubber controls have been in use for many years at numerous large coal power plants across the U. S., and other industrial countries across the world. Scrubber technology has significantly advanced, and numerous engineering designs are available. In other words, PSNH would not be starting from scratch, and likely has already done some pre-engineering work to reach its estimation of projected cost. As Director Scott projected at the recent hearing, the state permitting should reasonably be completed by early 2009 at the latest, and construction completed in one to two years. The timeframe for completing the permitting process will depend to some degree on whether there is opposition from interest groups - however a well-crafted bill with acceptable provisions will likely eliminate these types of delays, allowing permitting to be completed well before 2009. A reasonable deadline goal for the implementation of SO2 controls is therefore 2010.

3) In the meantime, what mercury control technology is economically and technically feasible and should be installed in the near term?

Among the current flaws in HB1673 is the lack of a requirement to reduce mercury emissions from Merrimack Station in the next few years. Emissions from Merrimack Station are a major contributor to the hotspot of mercury contamination in southeast New Hampshire. As a result, the Committee should focus on achieving the most significant reductions in mercury pollution possible, as quickly as possible. *To argue that HB1673 accomplishes this is misinformed at best, and misleading at worst.*

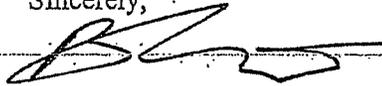
The development of mercury emissions control technology is rapidly advancing, leading Massachusetts, Connecticut, New Jersey – with Pennsylvania and Illinois – to conclude that 90% control of mercury emissions by the end of this decade is a reasonable regulatory target for coal-fired power plants. PSNH took a very brief, first look at Activated Carbon Injection (ACI) this summer, and a report of this test has yet to appear before the Committee. PSNH has indicated, in vague and nonspecific terms, that this test did not go as well as hoped and therefore the emission targets and timelines in SB 128 have been proven infeasible. This Committee and the people of

New Hampshire have a right to see a report on this test in order to understand what occurred, why, and how any challenges encountered could be addressed.

Most importantly, the ACI test performed at PSNH last summer is just the tip of the iceberg of the power of this technology. To draw from it the conclusion that ACI is not an option for mercury control at Merrimack Station, and therefore the plan laid out in HB1673 is the best we can do for mercury reduction, overlooks the significant potential of this technology. Experts in this field readily argue that 90% control of mercury is possible at all types of coal plants, quickly and cheaply. *The Coalition strongly urges the Committee to seek additional testimony from leading experts in this field, and not overlook the feasibility of strengthening HB1673 to require more mercury reduction, sooner, than is currently proposed.*

In conclusion, it is time to go beyond only asking PSNH what's possible for reducing mercury pollution. The people of New Hampshire expect, and deserve, more from the legislative process. The Committee must fulfill its role by taking a hard look at the numbers and assumptions provided by PSNH, and reach its own independent determination as to what must be done in the best interests of New Hampshire's ratepayers and citizens. Scrubbers should have been priority number one for PSNH as soon as the Clean Power Act passed in 2002; if scrubbers were on line by 2007, PSNH would have saved ratepayers about \$47 million in 2007 when the new cap and these incentives kick in. At this point there should be no further delays, a target date of 2010 for scrubbers, and interim controls for mercury should be incorporated into the bill.

Sincerely,



Brad Kuster
Conservation Law Foundation
New Hampshire Advocacy Center

For the: New Hampshire Clean Power Coalition:
Citizens for a Future New Hampshire
Clean Water Action
Conservation Law Foundation
Granite State Disability Coalition
New Hampshire PIRG
New Hampshire River Council
New Hampshire Sierra Club
National Wildlife Federation
New Hampshire Wildlife Federation
Worldview, LTD
New Hampshire UU Social Responsibility Department

NH CLEAN POWER COALITION

A concern for protecting NH

A diverse alliance of conservation, recreation, faith-based and public health groups have come together to advocate for passage of strong power plant clean up legislation because of the well-documented, continuing contamination of our environment and the resulting devastating impacts on human health and wildlife, in addition to the heavy costs to economic, educational and recreational interests in the state of New Hampshire.

Coalition Members & Profiles

Citizens for a Future NH, Hopkinton, NH is a citizens environmental group that is concerned for the protection of the environment of New Hampshire and the public health of its citizens. 225-2252

Clean Water Action, Portsmouth, NH is a citizens' organization working for clean, safe and affordable water, prevention of health-threatening pollution, creation of environmentally safe jobs and businesses, and empowerment of people—including our 5,000 NH members—to make democracy work.
www.cleanwateraction.org / 430-9565

Conservation Law Foundation, Concord, NH, is a regional organization that works to solve the most significant environmental problems that threaten New England. CLF's advocates use law, economics and science to create innovative strategies to conserve natural resources, protect public health and promote vital communities in our region.
www.clf.org / 225-3060

Granite State Disability Coalition, Plymouth, NH. People with every ability actively involved in enlightening people with any ability on the need to look for better ways to sustain a society that supports people of all abilities. 536-1884

National Wildlife Federation, Montpelier, VT
NWF represents the power and commitment of nearly a million members nationwide, over 7,000 of which reside in NH. NWF's mission is to inspire Americans to protect wildlife for our children's future.
www.nwf.org/mercury / 802-229-0650

NH Medical Society, Concord, NH. Represents over 2000 NH physicians (MD and DO) to advocate for patients and physicians on matters of public health and medical policy. Governed by member physicians who participate in all policy

and program decisions. Actively participates in the legislative process to educate state and national elected officials and promote its mission. www.nhms.org / 224-1909

NH PIRG, Concord, NH delivers persistent, result-oriented public interest activism that protects our environment, encourages a fair, sustainable economy, and fosters responsive, democratic government. NHPIRG has about 2000 members statewide. www.nhpirg.org / 229-3222

NH Rivers Council, Concord, NH, with 200 members, is the only statewide conservation organization wholly dedicated to the protection and conservation of New Hampshire rivers, by educating the public about the value of the state's rivers, designating rivers in the state's protection program, and advocating for strong public policies and wise management of New Hampshire's river resources.
www.nhrivers.org / 228-6472

NH Sierra Club, Concord, NH
is a non-profit member-supported, public interest organization with 6,000 NH members, that promotes conservation of the natural environment by influencing public policy decisions through legislative, administrative, legal, and electoral means. Mission: To explore, enjoy, and protect the wild places of the earth; To practice and promote the responsible use of the earth's ecosystems and resources; To educate and enlist humanity to protect and restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives.
www.nhsierraclub.org / 224-8222

NH Wildlife Federation, Concord, NH is a non-profit 7,500 member organization promoting conservation, environmental education, sportsmanship, and the outdoor activities of hunting, fishing and trapping.
www.nhwhf.org / 224-5953

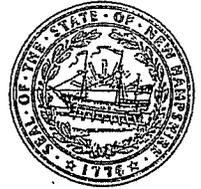
NH Unitarian Universalist Social Responsibility Department, Concord, NH has 200,000 members nationally and 3,500 members in NH. Seeking to make democracy work, honoring the web of existence.
www.nhfaithfuldemocracy.org / 228-8704

Worldview, Ltd, Peterborough, NH is a nonprofit organization that produces educational events linking environmental, economic and social justice issues.
924-9750

The NH Clean Power Coalition represents the interests of over 24,000 NH residents.



The State of New Hampshire
Department of Environmental Services



Michael P. Nolin
Commissioner

January 12, 2006

The Honorable Lawrence C. Ross, Chairman
New Hampshire House of Representatives
Science, Technology and Energy Committee
Legislative Office Building, Room 304
Concord, New Hampshire 03301

Re: HB 1673 - An Act Relative to Emission Reduction Standards as Required by the Clean Power Act

Dear Chairman Ross and Members of the Committee:

Thank you for the opportunity to provide testimony in support of HB 1673 which seeks to reduce mercury emissions from affected fossil fuel burning power plants within New Hampshire. In accordance with the requirements of RSA 125-O, the "*Multiple Pollutant Reduction Program*", the New Hampshire Department of Environmental Services (DES) made a recommendation to the Legislature on March 31, 2004 to place a cap on mercury emissions from these facilities.

Last year, the NH Senate passed SB 128 which contained similar mercury reductions as those contained in HB 1673. During committee hearings in the NH Senate and in the NH House, the public outcry and the expert testimony for controlling mercury emissions from our state's coal-fired power plants sent a clear message that significant mercury emission reductions must be made, but there were questions as how to best accomplish this task. Over the summer, PSNH in consultation with DES, performed tests with carbon injection control technology and researched the facility's ability to install wet scrubber technology. The results of this work led to the conclusion that while carbon injection can produce quick mercury emission reductions, the installation of the wet scrubber technology produces superior environmental benefits. HB 1673 is the product of months of discussions between Public Service Company of New Hampshire (PSNH), DES, the Office of Energy and Planning, the New Hampshire Governor's Office, and environmental groups that sought aggressive levels of mercury reductions while minimizing cost impacts on electrical ratepayers.

In order to best protect our citizens and environment from excess mercury emissions and to address the biological "hot-spots" documented to exist within our state, we feel a successful mercury bill must meet three goals. First, it must reduce emissions as quickly as possible. Second, the chosen technology used must achieve the greatest mercury reduction technically feasible. And third, the technology must be implemented in a way that maintains our electrical reliability and affordability, without shifting production to upwind states.

HB 1673 meets these goals with the creative use of incentives and the aggressive application of technology. Early reduction will be achieved through additional testing of carbon injection technology with subsequent ongoing implementation on the most successful application of this technology. Critical to the success of this bill is the requirement that wet scrubber technology be installed on Merrimack Units 1 and 2

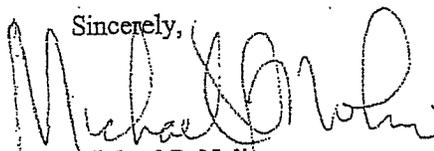
by July 1, 2013. The use of this technology not only reduces mercury very efficiently (greater than 90% in most applications), but it is highly effective in removing sulfur dioxide (SO₂) and small particles. This co-benefit of reducing three pollutants simultaneously with the same equipment reduces implementation costs by allowing PSNH to significantly reduce purchasing SO₂ emission allowances, saving greater than an estimated \$25 million per year (2005\$). Based on data shared by PSNH, the total capital cost for this full redesign will not exceed \$250 million dollars (2013\$) or \$197 million (2005\$), a cost that will be fully mitigated by the savings in SO₂ emission allowances. Finally, while the scrubber technology has been demonstrated to achieve higher levels of mercury reductions than initially called for in this bill, the bill contains a requirement that tightens the required reduction rate to the level that is actually achieved and is sustainable by the scrubber technology. Application of the requirements in this way reduces project risks while still achieving full environmental benefits.

Once completed, the mercury reduction requirements of HB 1673 should bring annual power plant emissions down to below 32 pounds per year and quite possibly below the 24 pound cap envisioned in the former SB 128. Further, HB 1673 is clearly more strict than the federal Clean Air Mercury Rule, that may have to be implemented here in New Hampshire with its own associated costs beginning in 2010, if no other alternative such as an enacted HB 1673 is proposed to EPA prior to November 2006. HB 1673 is consistent with state mercury programs in Connecticut, Massachusetts, New Jersey, and Indiana, as well as regional and national recommendations made by the State and Territorial Air Pollution Program Administrators and Association of Local Air Pollution Control Officials (STAPPA/ALAPCO), the Northeast States for Coordinated Air Use Management (NESCAUM), and the Ozone Transport Commission (OTC) for mercury Maximum Achievable Control Technology (MACT). Consistent with the amended SB 128, HB 1673 does not allow trading of mercury emission credits.

If passed, this bill will be technically challenging to implement because the existing configuration of the boilers, stacks, and air pollution control equipment at Merrimack Station does not easily lend itself to installation of additional equipment. Due to physical constraints, installation of additional equipment to optimally reduce mercury emissions would require major renovations. PSNH has worked hard to find creative solutions to these issues so that operations can be maintained while constructing and testing the required control equipment.

DES is committed to working with the Legislature to develop a prudent course of action to further reduce mercury emissions. Should any members have questions or need additional information regarding these recommendations, please feel free to contact Robert R. Scott, Air Resources Division Director, at 271-1088 or me at 271-2958.

Sincerely,



Michael P. Nolin
Commissioner

cc: HB 1673 Sponsors
Science, Technology and Energy Committee Members



The State of New Hampshire
Department of Environmental Services



Michael P. Nolin
Commissioner

April 11, 2006

The Honorable Bob Odell, Chairman
New Hampshire Senate
Energy and Economic Development Committee
Legislative Office Building, Room 304
Concord, New Hampshire 03301

ATTACHMENT # 10

Re: HB 1673 - An Act Relative to Emission Reduction Standards as Required by the Clean Power Act

Dear Chairman Odell and Members of the Committee:

Thank you for the opportunity to provide testimony in support of HB 1673, which seeks to reduce mercury emissions from affected fossil fuel burning power plants within New Hampshire. HB 1673 is the result of several months of discussions between Public Service Company of New Hampshire (PSNH), DES, the Office of Energy and Planning, the New Hampshire Governor's Office, interested members of the General Court, and environmental advocacy organizations. DES's goal in these discussions was to seek aggressive levels of mercury reductions while minimizing cost impacts on electrical ratepayers. This bill achieves these goals, *and* provides additional environmental co-benefits of reduced local sulfur and particulate emissions.

While DES can appreciate the concerns some have expressed for greater reductions in a shorter timeframe, we remain steadfast that this bill represents a thoughtful balance of environmental and economic concerns. It delivers significant, yet practicably achievable reductions in a reasonable timeframe, and includes meaningful incentives for additional reductions beyond the bill's specified minimum and/or early action to reduce emissions. Eliminating flexibility in the required reductions and schedule will do little to provide actual environmental benefit, and yet may be detrimental to project financing. We believe this package of an aggressive, yet realistic reduction target /schedule and economic incentives achieves our goals for meaningful environmental benefit, maintaining electricity supply stability, and reducing financial risk and subsequent ratepayer impact.

If passed, this bill will be technically challenging to implement because the existing configuration of the boilers, stacks, and air pollution control equipment at Merrimack Station does not easily lend itself to installation of additional equipment. Due to physical constraints, installation of additional equipment to optimally reduce mercury emissions would require major renovations. PSNH has worked hard to find creative solutions to these issues so that operations can be maintained while constructing and testing the required control equipment. We feel that 2013 represents a practicably achievable goal given these constraints. The specified technology has the potential to achieve reductions well beyond the minimum requirement of 80% from all affected sources (including PSNH's Schiller Station units). However, the bill contains significant incentives and safeguards to ensure higher reductions if achievable.

This bill ultimately results from the requirements of HB 284 (passed in the 2002 session), commonly referred to as the New Hampshire Clean Power Act. In accordance with the requirements of RSA 125-O (as established by HB 284) the "Multiple Pollutant Reduction Program", the New Hampshire Department of Environmental Services (DES) made a recommendation to the Legislature on March 31, 2004 to place a cap on mercury emissions from these facilities. In response, last year, the NH Senate passed SB 128 which contained similar mercury reductions as those contained in HB 1673.

During committee hearings in both the Senate and in the House, the public outcry and the expert testimony for controlling mercury emissions from our state's coal-fired power plants sent a clear message that significant mercury emission reductions must be made. There were questions, however, as to how best to accomplish this task. Over the summer, PSNH in consultation with DES, performed tests with carbon injection control technology and researched the facility's ability to install wet scrubber technology. The results of this work led to the conclusion that while carbon injection can produce quick mercury emission reductions, the installation of the wet scrubber technology produces superior environmental benefits at a lower overall cost.

In order to best protect our citizens and environment from excess mercury emissions and to address the biological "hot spots" documented to exist within our state, we feel a successful mercury bill must meet three goals. First, it must reduce emissions as quickly as possible. Second, the chosen technology used must achieve the greatest mercury reduction technically feasible. And third, the technology must be implemented in a way that maintains our electrical reliability and affordability, without shifting production to upwind states.

HB 1673 meets these goals with the creative use of incentives and the aggressive application of technology. Early reduction will be achieved through additional testing of carbon injection technology with subsequent ongoing implementation on the most successful application of this technology. Critical to the success of this bill is the requirement that wet scrubber technology be installed on Merrimack Units 1 and 2 by July 1, 2013. The use of this technology not only reduces mercury very efficiently (potentially greater than 90% in most applications), but it is highly effective in removing sulfur dioxide (SO₂) and small particles. This co-benefit of reducing three pollutants simultaneously with the same equipment reduces implementation costs by allowing PSNH to significantly reduce purchasing SO₂ emission allowances. Based on data shared by PSNH, the total capital cost for this full redesign will not exceed \$250 million dollars (2013\$) or \$197 million (2005\$), a cost that will be fully mitigated by the savings in SO₂ emission allowances. Finally, while the scrubber technology has been demonstrated to achieve higher levels of mercury reductions than initially called for in this bill, the bill contains a requirement that tightens the required reduction rate to the level that is actually achieved and is sustainable by the scrubber technology. Application of the requirements in this way reduces project risks while still achieving full environmental benefits.

Further, HB 1673 is clearly more strict than the federal Clean Air Mercury Rule, that may have to be implemented here in New Hampshire with its own associated costs beginning in 2010, if no other alternative such as an enacted HB 1673 is proposed to EPA prior to November 2006. HB 1673 is consistent with state mercury programs in Connecticut, Massachusetts, New Jersey, and Indiana, as well as regional and national recommendations made by the State and Territorial Air Pollution Program Administrators and Association of Local Air Pollution Control Officials (STAPPA/ALAPCO), the Northeast States for Coordinated Air Use Management (NESCAUM), and the Ozone Transport Commission (OTC) for mercury Maximum

Achievable Control Technology (MACT). Consistent with the amended SB 128, HB 1673 does not allow trading of mercury emission credits.

DES is committed to working with the Legislature to develop a prudent course of action to further reduce mercury emissions. Should your committee members have questions or need additional information regarding these recommendations, please feel free to contact Robert R. Scott, Air Resources Division Director, at 271-1088.

Sincerely,

Michael P. Nolin, Ass't. Comm.
for Michael P. Nolin
Commissioner

cc: HB 1673 Sponsors
Senate Energy and Economic Development Committee

