Northeast Utilities	780 N. Commercial Street, Manchester, NH 03101 Northeast Utilities Service Company
ORIGINAL	P.O. Box 330 Manchester, NH 03105-0330 (603) 669-4000
M.H.P.U.C. Case No. DE 11-250 Exhibit No. 99	- www.nu.com - Robert A. Bersak
Witness Michael E Hachey	Chief Regulatory Counsel
DO NOT REMOVE FROM FILE	(603) 634-3355 Robert.Bersak@nu.com

NHPUC 290CT'14Px3:07

October 29, 2014

Ms. Debra A. Howland Executive Director and Secretary New Hampshire Public Utilities Commission 21 Fruit Street, Suite 10 Concord, New Hampshire 03301

#### Re: Docket No. DE 11-250, Public Service Company of New Hampshire, Investigation of Scrubber Costs and Cost Recovery Hearing Exhibit No. 99

Dear Secretary Howland:

At the conclusion of the recent adjudicative hearing in Docket No. DE 11-250, the parties agreed that Exhibit No. 99 should be supplemented to ensure that a complete document was in the record.

Attached hereto is a replacement Exhibit No. 99 that meets that intent. As indicated on the new Exhibit, the information included in the replacement Exhibit No. 99 was previously provided to the parties by PSNH in response to data request Q-TC-06-233.

Sincerely,

ChutBusa

Robert A. Bersak Chief Regulatory Counsel

Attachment

cc: Service List

#### SERVICE LIST - EMAIL ADDRESSES - DOCKET RELATED

Pursuant to N.H. Admin Rule Puc 203.11 (a) (1): Serve an electronic copy on each person identified on the service list.

Executive.Director@puc.nh.gov		
	allen.desbiens@nu.com	miacopino@brennanlenehan.com
	amanda.noonan@puc.nh.gov	michael.sheehan@puc.nh.gov
	anne.pardo@mclane.com	mkahal@exeterassociates.com
	barry.needleman@mclane.com	MSmith@orr-reno.com
	bill.glahn@mclane.com	rgoldwasser@orr-reno.com
	catherine.corkery@sierraclub.org	rick.white@nu.com
	Christina.Martin@oca.nh.gov	robert.bersak@nu.com
	christine.vaughan@nu.com	sarah.knowlton@libertyutilities.com
	christopher.goulding@nu.com	Stephen.Hall@libertyutilities.com
	dhartford@clf.org	Stephen.R.Eckberg@puc.nh.gov
	dpatch@orr-reno.com	susan.chamberlin@oca.nh.gov
	elizabeth.tillotson@nu.com	suzanne.amidon@puc.nh.gov
	eric.chung@nu.com	tcatlin@exeterassociates.com
	f.anne.ross@puc.nh.gov	tirwin@clf.org
	heather.tebbetts@nu.com	tom.frantz@puc.nh.gov
	ifrignoca@clf.org	william.smagula@psnh.com
	jim@dannis.net	zachary.fabish@sierraclub.org
	josh.stebbins@sierraclub.org	
	kristi.davie@nu.com	
	linda.landis@psnh.com	
	lois.jones@nu.com	
	lrosado@orr-reno.com	
	matthew.fossum@nu.com	
	mayoac@nu.com	

Docket #: 11-250-1 Printed: October 29, 2014

#### **FILING INSTRUCTIONS:**

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

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

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

## SENATE CALENDAR NOTICE

# ENERGY, ENVIRONMENT AND ECONOMIC DEVELOPMENT

Senator Martha Fuller Senator Amanda Merri Senator Jacalyn Cilley Senator Bette Lasky Senator Bob Odell			Bill Stat	r
			L	alendar Bill Status
	HEARI	NGS	Date. Mai	i cii 3, 2003
F	riday	3/13/20	009	— H. MAR
ENERGY, ENVIRONMEN'	F AND ECONOMIC DEVELO	OPMENT LOB	206-208	9:00 AM
(Name of Committee)		(Place	e)	(Time)
	EXECUTIVE SESSI	ON MAY FOL	LOW	
Sponsors: SB152 Sen. Harold Janeway	installation at the Merrimack Rep. Robert Cushing	station is in the pu	blic interest of r	etail customers. Rep. David Borden
Danielle Barker 271-30	93		Sen. Mart	ha Fuller Clark

Chairman

**TO:** Members of the Senate

FROM: Patrick Murphy, Legislative Aide

**RE:** Hearing report on SB152 relative to an investigation by the public utilities commission to determine whether the scrubber installation at the Merrimack station is in the public interest of retail customers.

HEARING DATE: March 13, 2009

# **MEMBERS OF THE COMMITTEE PRESENT:**

Senator Fuller Clark (Dist 24), Senator Merrill (Dist 21), Senator Cilley (Dist 6), Senator Lasky (Dist 13), Senator Odell (Dist 8), Senator Carson (Dist 14)

# **MEMBERS OF THE COMMITTEE ABSENT:**

None

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### Sponsor(s):

Sen. Janeway, Dist 7; Rep. Cushing, Rock 15; Rep. R. Read, Rock 16; Rep. Borden, Rock 18

### What the bill does:

This bill requires the public utilities commission to investigate whether installation of mercury scrubber technology at Merrimack Station is in the interest of retail customers of Public Service Company of New Hampshire.

## Supporters of the bill:

Senator Janeway, Dist 7; Representative Hamm, Merr 4; Chris James and David Schlissel, Synapse Energy Economics Inc.; Jamie French, Northland Forest Products; Alexander Lee, Project Laundry List; Sandi Hennequin, New England Power Generators Association; Mark McPeak, Executive Director of UUSC Just Democracy; Gary Hirshberg, Commercial Ratepayers; Meredith Hatfield, Office of Consumer Advocate; Ken Colburn, Commercial Ratepayer; Catherine Bowes, National Wildlife Federation; Will Abbott, Society for the Protection of NH Forests; Joel Harrington, The Nature Conservancy *For a complete list of those signing in but not wishing to speak please see the official sign-in sheets.* 

## Those in opposition to the bill:

Senator Gatsas, Dist 16; Senator Letourneau, Dist 19; Representative Long, Hills 10; Representative Walz, Merr 13; Representative Kotowski, Merr 9; Gary Long, PSNH; Ed Foley, NH Building Trades; Daniel ONeil, Manchester Alderman; Harry Judd, Bow Selectman; Lisa Shapiro GCG/PSNH; Chris Williams, Nashua Chamber of Commerce; Gary Fortier - Power Advocates; David Fink, Pan Am Rail; Dan Fortin, President and CEO of Breath NH *For a complete list of those signing in but not wishing to speak please see the official sign-in sheets.* 

# Speaking to the bill/Neutral:

None

# Summary of testimony received:

Senator Janeway

- Introduced amendment 0780s
- This legislation requires the public utilities commission to investigate whether installation of mercury scrubber technology at Merrimack Station is in the interest of retail customers of Public Service Company of New Hampshire.
- Discussed the legislative history; including HB 284 from 2002 which established caps for emissions of sulfur dioxide, oxides of nitrogen, and carbon dioxide by existing fossil fuel burning steam electric power plants. HB 284 also permitted the banking and trading of emissions reductions to achieve compliance with the caps. Compliance was not required of a plant that installs qualifying re-powering technology or an eligible replacement unit.
- HB 1673 in 2006 provided for an 80 percent reduction of mercury emissions from coalburning power plants by requiring the installation of scrubber technology no later than July 1, 2013 and provided economic incentives for earlier installation and greater reductions in emissions.
- We should be open to additional information. Over the past 2 ½ years environmental pressures have increased and with the new administration in Washington D.C. we are facing new regulations and new pressures to act. This issue deserves some additional attention, it is the least we can do for NH's rate payers.
- Senator Odell commented that in 2006 the vote in the Senate was 22-2 to move forward with the scrubber at Merrimack Station. The public health danger was so compelling that even with the project cost of \$250 million, which sounded like a huge amount, we were in overwhelming support.
- In a response to a question from Senator Odell, Senator Janeway replied that this bill doesn't say to stop the work on the scrubber it just says to study.

Senator Gatsas

• In opposition to the bill and the amendment, Senator Gatsas asked the committee what the plan was at the end of the 90 day study. Spoke about the history of this issue and stressed the fact that this is a health issue and the need to remove mercury from the emissions. Commented that this legislature passed RGGI which cost more, and did it with less study. RGGI will cost the ratepayers more than the scrubber and RGGI won't do anything to address the negative health effects of mercury. No position should be taken until the project is complete and we know the true costs.

Senator Letourneau

- Believes this legislation poses great risk to his district at a time they can least afford it. Believes that SB 152 will take NH down a new, risky path where the foundation of our energy infrastructure is left exposed and unstable as a way to force NH in a new untested and unreliable direction. While the stated purpose of the bill seems harmless, in reality it would result in a scenario that will create greater costs for NH ratepayers, less energy security for our state as a whole, and the elimination of several hundred jobs.
- In his capacity as Chairman of the Senate Transportation Committee, has seen the cost of a ton of liquid asphalt go from \$250 in 2006 to about \$850 as of last summer. Cost increases for steel, concrete, gravel and labor are all well known.

• Suggested that we make sure one of NH's primary base load power plants remain stable, secure and viable. This bill would jeopardize up to 1,200 NH jobs.

Representative Long

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• Thanked PSNH for the family sustaining jobs and benefits. We all want clean air but the focus these days needs to be on the economy and jobs.

Representative Hamm

- Spoke about the history of this issue and the legislation that brought us to this point. Questioned if this was truly the best use of the \$457 million. This amounts to 83% more than anticipated cost.
- Senator Janeway was called back to answer if these costs are prudent. Senator Janeway's response was that this is not so much focused on the cost of the scrubber project but future commitments if standards change. This study will look beyond the scrubber to future costs.

Representative Walz

- Is alarmed that we have this bill to debate at all. This project will remove 85% of the mercury out of the air. This winter we came very close to not having enough energy to meet demand. Merrimack Station has jet engines that had to be used to generate the extra power needed. We can't replace base load power with intermittent power. A 3 month delay would equal a 9-12 month delay in construction which would only allow for additional construction cost increases.
- Who are we to come back 2 year later and change the rules in the middle of the game? We are looking at renewables and transmission capacity but in the meantime we need this baseline ability.

Representative Kotowski

• This bill is just one more carefully crafted attempt by anti-PSNH activists to bring the states largest utility to its knees once more. Passage of this bill is sure to cost ratepayers dearly for many years into the future.

Gary Long – President of PSNH

- The Merrimack Station in Bow is a coal-fired base load power plant that operates 24/7. Merrimack Station has a net output of 433 MW, which is enough energy for 190,000 NH households and is 35% of PSNH's generation mix. Merrimack Station meets or exceeds all environmental regulation.
- NH's blueprint for lowering emissions: the 2002 Clean Power Act
  - 85% reduction of nitrogen oxide from 1995-2000 achieved through the installation of groundbreaking selective catalytic reduction system
  - 80% reduction or better (2013 or sooner) of mercury required under the Mercury law that was passed in 2006.
  - 90% reduction or better (2013 or sooner) of sulfur oxide, a benefit of the Mercury law that was passed in 2006.
  - Stabilized carbon dioxide emissions through 2014 10% reduction from 2015-2018 (RGGI legislation passed in 2008)
- Status of the Clean Air Project
  - In a 2006 law, the NH Legislature mandated that a scrubber be installed as soon as possible, but no later than July 2013.

- Even without the state law, the scrubber will be needed to meet impending federal emissions requirements.
- PSNH is currently halfway through the 6 year project.
- \$230 million (over half of the cost to engineer and build the scrubber) has been spent or contractually committed. This cost will have to be recovered from PSNH customers whether or not the scrubber installation is completed.
- With the Scrubber, PSNH's Energy Rate Will Remain Below the New England Average
- Upon completion, the Clean Air Project will add an average of about 3/10's of one cent to PSNH's Energy Charge. That would bring the average PSNH cost per KWh to \$10.23 compared to the New England average of \$10.96.
- Major cost components include the FGD (flue gas desulfurization), chimney, material handling system, waste water treatment facility, program manager, balance of plant, site work, NU labor, financing and insurance.
- 2005 / 2008 Cost Comparison

4

Project Components	2008 (firm price contracts)	2005 (initial estimates)
<b>5 Major Contracts</b> Scrubber system, chimney, material handling system, wastewater treatment facility, program manager	\$213 million	\$149 million
<b>Balance of Contracts and Materials</b> Ductwork, foundations, booster fans and motors, electrical, site work, etc.	\$135 million	\$48 million
Owner Costs Project financing, insurance, NU labor, and overhead costs	\$80 million	\$35 million
Escalation and Contingency	\$29 million	\$18 million
Total	\$457 million	\$250 million

- Three Major Drivers of Cost Increase
  - Economic and Commodity Volatility Significant cost increases reflective of national ad world economy, increased financing costs.
  - Site Specific Factors Scrubber must guarantee 85% mercury reduction, two power generation units of differing size must connect into one scrubber system.
  - Progression from Initial Estimate Phase to Design Phase Firm price performance-based contracts with vendor guarantees have replaced initial estimated pricing, majority of project design completed, replacing preliminary engineering used to determine initial estimates.
- The only alternative to installing the scrubber is to not install the scrubber. The \$457 million for the scrubber is not transferable to other clean energy projects. Without the scrubber, Merrimack Station will be out of compliance with state and federal laws, which would lead to a shutdown of the plant. PSNH customers could be on the hook for \$300 million in stranded costs, with nothing to show for it. \$230 million for the scrubber has already been committed.

- A 90-Day study will not change the cost of the scrubber, change Merrimack Station's fuel source, and provide accurate forecasts for the price of oil, gas, coal, or financing rates.
- A 90-Day study will not tell you what federal regulations will be passed and when, tell you how much renewable energy NH will build, where it will be located, and when it will be in service, and will not accurately predict the future.
- A 90-Day study will invite lengthy speculation and create momentum to not install the scrubber and will set Merrimack Station on the path to a shutdown.
- Voting in favor of SB 152 is voting to shut down Merrimack Station.
- Senator D'Allesandro

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• We directed PSNH to install this scrubber 2 years ago because we were concerned with the well being of our communities. Anything that slows down this process is not in the best interest of our constituents. Moving forward with the scrubber is good public policy.

Chris James and David Schlissel – Synapse Energy Economics Inc.

- A 90-day term will allow NH PUC to verify PSNH's cost assumptions, would permit impartial study and analysis to be completed, and is consistent with the legislature's previous oversight role dating back to the 2002 Clean Power Act. PSNH's responses have changed significantly in one week and deserve further scrutiny and analysis.
- There is no evidence that PSNH includes the potential costs of having to convert Merrimack to a closed-cycle water cooling system with cooling towers. These costs could be in the range of \$50 to \$100 million and impose performance penalties on the plant because of the power needed to operate the pumps and other components of the new closed-cycle cooling system.
- There is no evidence that PSNH has included the costs of complying with new federal MACT regulations for mercury control. It is likely that the new federal standards will be 90-95% control, significantly higher than the 80% required by NH.
- EPA has announced that it is going to issue coal ash regulations by the end of 2009 there is no reason to believe that Merrimack will be exempt from those regulations.
- Prudent risk assessment and wise business practices require that major project commitments be re-examined when circumstances change significantly.
- Since 2006: The estimated cost of the scrubber has increased by 83%. Federal regulation of greenhouse gas emissions is imminent. The U.S. is experiencing severe recession and financial crisis and there is an increased recognition of the benefits of and the need for energy efficiency and renewable resources.
- More than 80 proposed coal projects have been cancelled or delayed significantly since mid-decade, concerns over construction costs and future possible CO2 regulations have been contributing factors.
- Preliminary Synapse Findings
  - PSNH Substantially Overstates Project Benefits and Understate Possible Future Cost of Power
  - PSNH talks about dangerous reliance on foreign energy sources but relies on Venezuela for approximately 40% of the coal burned at Merrimack.
  - The future cost of power from Merrimack will be impacted by federal regulation of coal ask and new, stricter federal Mercury MACT regulations. It also could be affected by the costs of converting the Station to a closed-cycle cooling water

system. There is no evidence that PSNH has considered any of these costs in its cost estimates.

- Affordable and timely alternatives to a scrubber exist to significantly reduce sulfur dioxide and mercury emissions from Merrimack.
- Coal is the most carbon intensive fuel. Natural gas-fired plants emit approximately 60% of the CO2 per unit of output as a coal plant. Energy efficiency and renewable resources do not emit CO2.
- Federal regulation of greenhouse gas emissions from coal-fired power plants is imminent and will require steep reduction in CO2 emissions beyond those required under RGGI.
- Independent analyses show potential prices for purchasing CO2 emission under a federal cap-and-trade system could be far higher than PSNH has assumed.
- If more reasonable CO2 prices are assumed, the cost of power from Merrimack could range from between 11.0 and 14.7 cents per KWh – much higher than the 10.0 cents per KWh claimed by PSNH.
- PSNH's claim that much of the estimated construction cost is under fixed price contracts is surprising given the general industry experience where vendors and suppliers are unwilling to agree to fully fixed price contracts because of cost uncertainties.
- There are less expensive alternatives to Merrimack that would produce local jobs, reduce environmental impact, and avoid the risk of expensive future regulatory costs that would be borne by NH citizens. Examples include: purchasing power from the market, energy efficiency, renewable resources, transmission system upgrades and new natural gas-fired combustion turbine or combined cycle capacity or increased output at existing plants.

Ed Foley - NH Building and Construction Trades Council

- Workers from NH Building Trades unions already have begun site preparation work for the scrubber installation, and skilled NH workers are slated to begin the major installation work by March, 2009 in order to complete this environmentally essential project on time.
- We are deeply troubled that the current conversation about the Merrimack Station clean air scrubber appears to be framed as an "either/or" proposition when what we really need to be focusing on is "both/and." The Legislature must keep its two-year old commitment to every NH citizen impacted by the emissions from the Bow coal-fired plant that a clean air scrubber will be installed without delay.

Jamie French, Northland Forest Products

• Rate payers need to know what to expect. Doesn't believe this is in the best interest of rate payers. Commented that wood products are down 20-30% in price.

Daniel ONeil, Manchester Alderman

- Merrimack Station produces electricity at costs below open market prices. This means that this facility puts downward pressure on PSNH customer's electric bills. Enacting public policy that establishes a path that would leave Merrimack Station out of compliance with state emission laws and could result in the shutdown of the plant would mean higher electric costs for all customers.
- The City of Manchester, our city's residents and business together pay about \$122 million per year for electricity. If PSNH was forced to replace the power produced by

Merrimack on the open market, it would cost the city and all Manchester ratepayers an additional \$5.5 million per year.

• Initiating policies that could lead to the shut down of Merrimack Station could negatively impact the future of Manchester by eliminating the possibility of bringing passenger rail to the city. A lot of people have worked for years to move this issue forward, but the fact is that all plans for passenger rail depend on an active freight rail operation. Without freight trains carrying coal, lime and other materials to and from the Bow power plant, passenger rail will not happen.

Harry Judd, Bow Selectman

- This legislation is unnecessary. The PUC will conduct a full audit and prudence review, before the cost of the improvements at Merrimack Station is permitted in PSNH's rates. This is a standard procedure before any significant capital addition is approved and it is sure to be done for this project.
- The effect of delay could result in abandonment of the project, which would result in the closing of the unit. PSNH is mandated to have the scrubber technology operational by July1, 2013, and the delay proposed in this bill would most likely make that an impossibility. Without scrubbers the plant will not meet EPA standards, and will be forced to close.
- Regulated entities are entitled to regulatory certainty. The relevant provisions of RSA 125-O were enacted after thorough vetting with all parties of interest. I believe that if the state reneges on the regulatory compact established in RSA 125-O it would face serious consequences.
- If delay results in closing the plant, the reliability of energy supply in NH will be jeopardized. Diversity of generation is essential to prudent utility planning and for cost control.
- Merrimack Station is a base load unit. It is dispatchable, meaning it will be online when needed to meet demand. Evolving technologies, such as wind and solar, have yet to evolve into dispatchable generation.
- PSNH is a good corporate citizen, both in Bow and in NH.

Alexander Lee - Project Laundry List

• Commented on the negative environmental effects of using coal for power generation.

Dr. Lisa Shapiro

- The purpose of this study is to provide an estimate of the economic benefits to NH jobs, gross state product, and personal income from the construction of a wet flue gas desulphurization system, commonly called a scrubber, at Merrimack Station.
- There is immediate and significant job creation from the investment in the scrubber project as a result of direct, indirect, and induced economic effects.
- Beginning in 2009 and continuing through 2012, about 1,000 jobs per year will be created (or saved) in NH from the scrubber construction project.
- The new (or saved) jobs are primarily in construction, retail, and services.
  - Median estimate of 1,118 new (or saved) jobs in 2009.
  - $\circ$  Median estimate of 1,241 new (or saved) jobs in 2010.
  - $\circ$  Median estimate of 876 new (or saved) jobs in 2011.
  - Median estimate of 692 new (or saved) jobs in 2012.

- The state's Gross State Product (GSP) is estimated at \$224 million higher on a cumulative basis during 2009-2012, and economic output at \$396 million higher on a cumulative basis over the 4 year forecast period of the scrubber project construction.
- Disposable personal income is projected to increase during the 2009-2012 period by an average of about \$35 million per year.
- For the full report "The Economic Impacts of Constructing a Scrubber at Merrimack Station" please see the committee record.

Sandi Hennequin - New England Power Generators Association (NEPGA)

• NEPGA's members support SB 152 and believe there needs to be a determination made by the PUC as to whether the scrubber installation at Merrimack Station is in the best interest of retail customers. Our objective in supporting this bill is not to take a position on whether Merrimack should continue to operate or not. Instead our position is motivated by a desire to insert a degree of accountability into the process and to make sure the right questions are asked in order to justify the use of ratepayer financing.

Mark McPeak – Executive Director of UUSC Just Democracy

• The time for expanding our use of coal has well and truly passed, because today we know that our use of this fuel threatens our planet. I believe, and my organization believes, that we have a moral duty to move away from the use of coal.

Chris Williams, Nashua Chamber of Commerce;

- History of bill HB1673 hearing report has some interesting info. Talked about testimony that said this bill would be a contract with PSNH. Other testimony talked about the seriousness of the bill and the long reaching and permanent nature of the bill. The Committee at the time understood that technology would change but didn't want PSNH to have to go back to the PUC, and the Senate did move forward understanding that this was a contract with PSNH.
- The perceived intent is that those who support the bill are here because they want the plant to close, they have admitted that. To attract business to the area we need to be confident that reliable power will be available going forward.

Gary Hershburg - Commercial Ratepayers

- Employs 242 people. Generates \$3 billion in NH. The intent is not to shut down the Merrimack Station. Intent is to for the first time get an objective third party evaluation of how money is spent. We have generated jobs and savings in NH. The state made a deal with the utility. This bill will not delay or stop the scrubber project. This asks that we, as employers, know what our money is being spent on. This is first and foremost a health issue. If we are serious about eliminating mercury emissions, this project is not the most economical way to accomplish that goal. We don't know what we are getting into here. There are reasons to enable ratepayers to get information relative to what return they will get on this investment. Ratepayers will find out that 5 years from now they are caring a much bigger burden. Doesn't know what the alternative to the scrubber would be but we should do the study to find out.
- Fear of the data is not a reason to not undertake the study. Ratepayers deserve an objective analysis. There are still a lot of questions that we don't have answers to. \$17 million a year is the available profits if this goes through and the information being provided is coming from that organization. It's only fair to get confirmation of that information from a third party. If businesses go somewhere else for power that would leave the entire burden on the residential ratepayer.

• Why all this effort to stop a study? The answers to are question have only been answered by one source. We need to move ourselves to another source of energy. There are far more jobs available with the development of new energy sources. The entire economy has changed in the last 2 years. We send \$150 million out of NH a year to buy coal.

Gary Fortier - Power Advocates

- Retained by PSNH to do a cost estimate of the Merrimack Station. Merrimack Station Clean Air Project. Track cost of commodities and look at common utilities components. Look at underlying costs and market conditions. Every attempt is made to compare apples to apples. 2012 dollars were used in the analysis. KW cost is \$775.
- 2.8% increase in cost per year is predicted. \$517 per KW is the median.
- Majority of equipment costs are in fixed contracts. Target price contracts are also used which include penalties if they are not met.
- Energy Outlook long-term demand for infrastructure is very strong. When commodity price increases so does equipment prices with a lag time of about 6 months. Costs are inline with construction standards.

Meredith Hatfield - Office of Consumer Advocate

- Supports cost analysis of price increase. PUC does have the jurisdiction for this review. Our job is to ensure that this type of analysis is done and that hasn't happened yet. We are at a moment now where we can ask some questions. It we wait much longer it will be too late. Please hold Gary Long to his word that the cost will not exceed \$457. Give the company strong incentive to not have another cost overrun. Let's learn from this that we need a comprehensive energy policy for the future. Let's invest resources to invest in our energy future. See handouts on current rates
- Would like the company to pause and do a review. Potential cost to ratepayers in the future due to future increased regulations. This study would allow the PUC to review other assumptions while PSNH takes the 15 years to pay off the scrubber. Represents all residential customers who use PSNH.

Ken Colburn - Commercial Ratepayer

- If Commercial Ratepayers group is wrong what risk is there? The project will continue as they are already ahead of schedule. No harm done.
- The next great de-centralization is likely to be in energy technologies. We are seeing a change in the grid system. Coal may have a long future in the U.S. because the assumption is we will be able to find a way to sequester carbon going forward. Relative cost of new generation about \$2,000 for scrub coal generation. Power availability is about 7 times that of Merrimack Station. PSNH is not only a generator but a distributor.
- The issue of jobs is a key one and it has been made quite obvious that renewable energy is a huge opportunity.

Senator Odell

• Pointed out that this is a public health issue, believes that we have lost the purpose of this issue. NH made an agreement with this company and he thinks it is disingenuous to claim that because the cost has raised the reason for going forward in the first place should be different.

David Fink - Pan Am Rail

• Mr. Fink has 48 customers who use the rail to get to Merrimack Station. Mr. Fink talked about using U.S coal and other U.S. sources of energy generation. By shutting the plant it would dramatically reduce the use of rail to transport all the products that we bring into

NH. Merrimack Station is a large part of the transport of coal into NH on railroads. We need the coal demand to keep the rail viable, if we don't, passenger rail would not be seen as viable.

### Dan Fortin – President and CEO of Breath NH

- During the 2006 Legislative Session, Breath NH, along with a number of non-profit organizations representing the NH Environmental Community, supported the Mercury Bill (HB 1673-FN) because the co-benefit of a reduction in sulfur dioxide emissions related directly to our mission which is to eliminate lung disease and improve the quality of life for those living with lung disease in NH.
- Sulfur dioxide contributes to respiratory illness. Its major health impact is on population groups that are especially susceptible to the pollutant's effects, because of pre-existing lung conditions, such as asthma and chronic obstructive pulmonary disease. In the case of asthma, there has been extensive investigation, with many clinical studies demonstrating the rapid onset of an asthma attack in patients when exposed to sulfur dioxide. The effect tends to be immediate, occurring within a few minutes of exposure. Because sulfur dioxide is a known trigger for those with asthma, as well as others with preexisting respiratory diseases, we believe the installation of the scrubbers represents a positive step in helping to improve the quality of life for individuals living with lung disease.
- Until such time that a definitive plan identifying how, when, and at what cost the capacity of the Merrimack Station can be replaced, we believe that NH will remain dependent on that facility as part of the state's energy portfolio for many years. Therefore, we believe the installation of the Flue Gas Desulphurization system at Merrimack Station would result in cleaner air for all NH residents.

Catherine Bowes - National Wildlife Federation

- It is becoming increasingly clear that there will be substantial costs borne by NH ratepayers if Merrimack Station is to function in compliance with the full range of current and anticipated state and federal pollution standards. Specifically, recent estimates are finding that it may cost billions of dollars to fully upgrade the plant to run for the next 20 years.
- It only makes sense for the Legislature to take a step back and look at the big picture. An investment of this scale in NH's energy future should not be taken lightly. It's your responsibility to ensure that we address the state's energy needs in the most cost-effective manner, taking into account the full range of costs relative to the alternatives.

Will Abbott - Society for the Protection of NH Forests

• We believe that the gathering of credible information concerning the cost of mercury controls mandated by the Legislature in 2006 and potential alternatives can be informative to future Legislative decision-making on state energy policy.

Joel Harrington – The Nature Conservancy

• We believe that the mercury mandate passed by the legislature in 2006 should proceed unless and until an independent analysis suggests otherwise.

• SB 152 underscores the need for a statewide comprehensive energy policy.

Others who opposed SB 152

• Numerous people testified that due to the poor economy this would be the wrong time to risk all the jobs associated with Merrimack Station, and it was their common belief that this bill is an attempt to close the plant.

Others who supported SB 152

• Numerous people testified that we should be trying to move away from coal-fired power generation. Many people stated that the committee should be talking about CO2 and not SO2. They commonly believe that renewable energy generation should be supported to offset the closing of Merrimack Station.

## **Funding:**

None

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### Action:

Executive action is pending.