THE STATE OF NEW HAMPSHIRE
BEFORE THE PUBLIC UTILITIES COMMISSION

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
PETITION FOR INCREASE IN SHORT TERM DEBT LIMIT AND TO ISSUE LONG TERM DEBT

DOCKET NO. DE 09-033

CONSERVATION LAW FOUNDATION'S MOTION TO FILE SUPPLEMENT TO ITS MEMORANDUM OF LAW ON THE PUC'S DUTY TO MAKE A PUBLIC GOOD DETERMINATION ON PSNH'S PROPOSED FINANCING

Pursuant to N.H. Code Admin. Rules PUC 203.07, Conservation Law Foundation ("CLF") moves to file the attached supplement to its April 10 brief in the above-captioned docket. In support of its motion, CLF states the following:

1. On April 10, 2009, CLF filed a brief captioned "Conservation Law Foundation's Memorandum Of Law On The PUC's Duty To Make A Public Good Determination On PSNH's Proposed Financing," ("April 10 Brief") in response to the Commission's request for briefing from the parties to this docket on the question whether the Commission has authority to review Public Service Company of New Hampshire's ("PSNH") proposed financing.

2. Since the April 10 Brief was filed, new facts have developed that provide further support for the arguments set forth in the April 10 Brief and are highly relevant to the question of the Commission's duty to review PSNH's proposed financing. Those facts are: (1) recent action by the Public Service Commission of Wisconsin to investigate cost effectiveness—in light of developments related to federal regulation of carbon dioxide emissions—of a proposed pollution control installation project at the Columbia Energy Center coal-fired power station; and (2) the Federal Energy Regulatory Commission's ("FERC") May 21, 2009, preliminary approval of a proposal by Northeast Utilities (PSNH's parent company), NSTAR, and Hydro-Quebec to build

a one billion dollar transmission line that will deliver 1,200 megawatts of additional electricity from hydropower sources in Quebec to the New England grid.

3. Consideration of these new facts will aid the Commission's deliberations.

WHEREFORE, CLF respectfully requests that its motion to file this supplement to its April 10 Brief be granted.

Respectfully submitted,

CONSERVATION LAW FOUNDATION

By: ______________________

Date: June 4, 2009

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CERTIFICATE OF SERVICE

I hereby certify that on the 4th day of June, 2009, a copy of the Conservation Law Foundation's Motion to File Supplement to Its Memorandum of Law on the PUC's Duty to Make a Public Good Determination on PSNH's Proposed Financing and Conservation Law Foundation's Supplement to Its Memorandum of Law on the PUC's Duty to Make a Public Good Determination on PSNH's Proposed Financing was sent electronically, and by First Class Mail, to

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Dated in Concord, New Hampshire this 4th day of June, 2009.

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DOCKET NO. DE 09-033

CONSERVATION LAW FOUNDATION'S SUPPLEMENT TO ITS MEMORANDUM OF LAW ON THE PUC'S DUTY TO MAKE A PUBLIC GOOD DETERMINATION ON PSNH'S PROPOSED FINANCING

Conservation Law Foundation provides this supplement ("Supplemental Brief") to its April 10, 2009, brief (April 10 Brief) submitted in response to the New Hampshire Public Utilities Commission's ("Commission") request for briefing from the parties to this docket on the question whether the Commission has authority to review Public Service Company of New Hampshire's ("PSNH") proposed financing. As set forth in the accompanying motion, this Supplemental Brief addresses new facts that were not available at the time the April 10 Brief was filed and that further support CLF's argument that the Commission must conduct an *Easton* review to determine whether PSNH's proposed financing is economically justifiable in light of other alternatives and therefore in the public good.

Specifically, the Supplemental Brief identifies (1) recent action by the Public Service Commission of Wisconsin to investigate cost effectiveness—in light of developments related to federal regulation of carbon dioxide emissions—of a proposed pollution control installation project at the Columbia Energy Center coal-fired power station; and (2) the Federal Energy Regulatory Commission's ("FERC") May 21, 2009, preliminary approval of a proposal by Northeast Utilities, NSTAR, and Hydro-Quebec to build a one billion dollar transmission line that would link the New England power grid to hydropower sources in Quebec and provide 1,200 MW of electricity to New England.[1]

A. The Commission Should Consider the Effect of Carbon Dioxide Regulation on the Cost Effectiveness of the Scrubber Project for Purposes of Determining Whether the Proposed Financing Is In the Public Good

The Public Service Commission of Wisconsin ("Wisconsin Commission") recently has been presented with a matter that implicates questions similar to those presented in this docket: whether investment in pollution control at a more than thirty year old coal-fired power plant is cost effective for ratepayers. The joint owners of the Columbia Energy Center have applied for a certificate of authority from the Wisconsin Commission to install a pollution control system to reduce sulfur dioxide and mercury. *See generally*, Joint Application of Wisconsin Power and Light Company, Wisconsin Public Service Corporation, and Madison Gas and Electric Company For a Certificate of Authority to Install Emissions Reduction Systems at The Columbia Energy Center Units 1 and 2, Docket No. 5-CE-138 ("Application").[2]

In response to the Application, the Wisconsin Commission issued the following data request:

> Given recent EPA action on the Endangerment Finding regarding CO_2 as a pollutant, as well as the activity in the Congress on proposed legislation to place a cap on CO_2 emissions, there is a significant likelihood that absolute CO_2 emissions reductions will be required on a unit, facility, or fleet basis. Prepare and submit an analysis addressing the following:
>
> If CO_2 emissions must be reduced by 2025 by up to 30 percent from a 2005 fleet CO_2 emissions baseline, what assurance can you provide to the Commission that:

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[1] *See* http://www.bloomberg.com/apps/news?sid=aRYI0sPWtUZk&pid=20602099.

[2] Available at http://psc.wi.gov/apps/erf_search/content/result.aspx.

a. The investment in proposed pollution controls will be cost effective, and;

b. That the unit(s) will be in use long enough to assure that the investment will be both cost effective and not become a stranded investment.

See Exhibit A, attached hereto, Response of Wisconsin Power and Light Company, Wisconsin Public Service Corporation, and Madison Gas and Electric Company to The Public Service Commission of Wisconsin Data Request No. 1.01 (May 21, 2009).

These inquiries reflect the Wisconsin Commission's understanding of the very substantial economic impact of imminent carbon dioxide regulation on coal-fired power plants, and appropriately provides an opportunity for meaningful, transparent public consideration of these issues. Importantly for purposes of this docket, the Wisconsin Commission's actions underscore, as set out in CLF's April 10 Brief at pp. 9-11, that review is warranted to determine whether PSNH's proposed use of financing proceeds is a sound investment and in the public good, and that determination involves consideration of "all the circumstances," including precisely these types of facts. See *Appeal of Easton*, 125 N.H. 205, 213 (1984). PSNH must demonstrate to the Commission—and ratepayers—why the proposed financing for the scrubber project—including the new turbine and generator to power it—is cost effective in light of anticipated federal carbon dioxide regulation and must provide an analysis regarding why the project will not become a stranded investment.[3]

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[3] By statute, PSNH's ability to recover its prudently incurred costs is limited to its default energy service charge, which is paid only by those customers that elect to purchase energy from PSNH, rather than from competitive suppliers. *See* RSA 125-O:18. Accordingly, regulatory requirements that increase the costs of PSNH's energy supplies also have the effect of diminishing PSNH's ability to recover the costs of the scrubber project.

B. The Commission Must Consider Whether the Financing Is In the Public Good Based On the Likely Future Availability to the New England Grid of An Additional 1,200 MW of Electricity

The Commission's public good determination requires an assessment of the "economic justifiability of the object of the financing compared to other options available to the utility." *See* The Commission Appeal of Seacoast Anti-Pollution League, 125 NH 708, 711 (1984). In its April 10 Brief at pp. 7-9, CLF identified several existing potential sources of energy that present viable alternatives to continued Merrimack Station operations. FERC's preliminary approval of the proposal by Northeast Utilities (PSNH's parent company), NSTAR, and Hydro-Quebec to build a transmission line that will deliver 1,200 MW of electricity from hydropower plants in Quebec presents an additional, large scale, likely alternative source of power that would—in combination with other sources of energy, including efficiency—completely obviate the need for Merrimack Station.

PSNH must demonstrate why spending half a billion ratepayer dollars[4] on pollution control equipment at the aging Merrimack Station is cost effective in light of both pending federal carbon dioxide regulation and the increasingly likely addition of an amount of electricity from hydropower sources equivalent to three Merrimack Stations.

For the foregoing reasons, the Commission should conduct an *Easton* review of PSNH's proposed financing that includes a determination whether the proposed uses of the funds would serve the public good, and takes into account these relevant new facts.

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4 Moreover, PSNH has not provided the Commission with the opportunity to determine whether the scrubber project could be constructed at a lower cost considering the somewhat limited remaining useful life of Merrimack Station. That analysis must take place before the Commission approves financing for the project.

Respectfully submitted,

Date: June 4, 2009

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EXHIBIT A

PSC REF#:113971

Public Service Commission of Wisconsin
RECEIVED: 05/21/09, 2:49:37 PM

Response of
Wisconsin Power and Light Company, Wisconsin Public Service Corporation, and Madison Gas and Electric Company
to
The Public Service Commission of Wisconsin
Data Request No. 1.01

Docket Number:	05-CE-138
Date of Request:	May 7, 2009
Information Requested By:	Jim Lepinski
Date Responded:	May 21, 2009
Author, Title, & Phone:	Jamie Niccolls, Senior Asset Strategy Consultant (319) 786-4882 Steve Daavettila, Senior Electric Resource Planner (920) 433-1195 Jeff Block, Generation Planning Manager (608) 252-4786 Michael Greiveldinger, Attorney for WPL Brad Jackson, Attorney for WPS Rich Nordeng, Attorney for MGE
Witness: (If other than Author)	

Data Request No. 1.01:

Given recent EPA action on the Endangerment Finding regarding CO_2 as a pollutant, as well as the activity in the Congress on proposed legislation to place a cap on CO_2 emissions, there is a significant likelihood that absolute CO_2 emission reductions will be required on a unit, facility, or fleet basis. Prepare and submit an analysis addressing the following:

If CO_2 emissions must be reduced by 2025 by up to 30 percent from a 2005 fleet CO_2 emissions baseline, what assurance can you provide to the Commission that:

a. The investment in proposed pollution controls will be cost effective, and;
b. That the unit(s) will be in use long enough to assure that the investment will be both cost effective and not become a stranded investment.

The analysis need not use EGEAS, but it needs to quantify how the proposed construction is likely to be cost effective.

Response:

The Columbia co-owners EGEAS Summary Report (found in Appendix C) contains a quantitative analysis that demonstrates that the installation of emission controls is a prudent investment. The Columbia co-owners evaluated 40 different scenarios using the Electric Generation Expansion Analysis System (EGEAS) model for this Docket 5-CE-138. Many of these scenarios examined the effects of real CO_2 reductions (as opposed to simply monetizing CO_2 to reflect a CO_2 tax) that may be required in the future. The complete documentation and quantification of these scenarios can be found in Appendix C – EGEAS Summary Report and Attachments A and B to Appendix C. These Attachments A and B provide the various tables that summarize the results of the EGEAS analysis.

In Future 7 of the Columbia co-owners EGEAS analysis, which was referred to as the "High CO_2 Reduction Future", alternative plans for Columbia were evaluated in a scenario that included the need for high CO_2 emission reductions in the future. In Future 7, Plan 1 includes Columbia with the proposed emission controls and continued operation through its assumed 60 year operating life. For purposes of the EGEAS analysis, it was assumed that Columbia 1 would be retired at the end of its assumed 60 year operating life (at the end of 2034) and that Columbia 2 would be retired at the end of its assumed 60 year operating life (at the end of 2037). For reference, Columbia 1 began service in 1975 and Columbia 2 began service in 1978. Also in Future 7, Plan 4 includes early replacement of Columbia without the installation of emission controls at the end of 2013.

Table 23-D of Attachment B summarizes the Columbia co-owners' CO_2 emissions by year for Plans 1 and 4 for Futures 1, 5, and 7 as compared to 2005 emissions levels. Table 23-D shows that, under Future 7, the Columbia co-owners each achieve CO_2 reductions greater than 30 percent by 2025 under Plan 1. The co-owners would be on track to achieve 70 to 80 percent reductions in CO_2 emissions by 2050. The analysis assumes that these potential large CO_2 emission reduction requirements would be met with increased installation of renewable resources and the availability of and installation of new nuclear plants or other zero carbon resources (priced at or lower than new nuclear plants). For Future 7 it was assumed that Renewable Portfolio Standards (RPS) are increased to 25 percent by 2025 and that zero carbon resources priced at nuclear would be available by 2025.

Table 4 of Attachment A provides a cost comparison for Plan 4 versus Plan 1 under Future 7. The estimated cumulative PVRR savings (Plan 4 – Plan 1) are summarized below by Company and in total as follows:

Company	**Cumulative PVRR Savings as of 2017**	**Cumulative PVRR Savings as of 2025**	**Cumulative PVRR Life Cycle Savings**
WPL	$254.4 M	$779.6 M	$866.7 M
WPS	$214.2 M	$435.6 M	$606.6 M
MGE	$237.7 M	$410.0 M	$500.0 M
3 Company Total	**$706.3 M**	**$1,625.2 M**	**$1,973.3 M**
The proposed pollution control projects have an escalated (inflation adjusted) capital cost of $627 million which results in a capital present value revenue requirement of $671.1 million.			

By the year 2025, Table 4 shows a cumulative present value revenue requirement (PVRR) savings for the three Columbia co-owners of over $1.6 billion for continued operation of Columbia with emission controls (Plan 1) as compared to replacing Columbia early (Plan 4).

The cumulative PVRR life cycle savings associated with the proposed pollution controls and continued operation of Columbia for its assumed 60 year life is estimated to be approximately $2.0 billion for the three co-owners.

Although the co-owner's EGEAS analysis is not a rigorous breakeven analysis, the co-owners' EGEAS analysis does estimate the point in time at which the benefits associated with the proposed pollution controls are greater than the controls' capital cost. The determination can be made by comparing the cumulative PVRR savings associated with continued operation of Columbia with the proposed controls to the cumulative PVRR associated with the capital investment in proposed pollution controls.

The cumulative PVRR (three companies) of the capital revenue requirements for Hg and SO2 pollution controls is $671.1 million. The cumulative PVRR savings (PVRR of premature replacement minus PVRR of proposed pollution control projects) in Future 7 reaches $706.3 million (three company total) in 2017. This number is found in Appendix C, Attachment A, Table 4 on page 7 of 12. Thus by the end of 2017 the benefits of adding pollution controls to Columbia exceed the capital revenue requirements associated with adding the pollution controls.

The question of stranded investment relates to how the investment in emission controls will be recovered over the remaining life of Columbia. The Columbia co-owners have proposed to finance the project as a traditional utility plant to be included in rate base and have proposed to recover the costs over the remaining operating life of the units. Under this approach, the analysis for Future 7, Plan 1, indicates the 30% CO_2 reduction goal would be achieved without any stranded investment.

Obviously, the co-owners (and the Commission) must make their decisions based on the best information available to them at the time. There is no "assurance" that will guarantee the results of any planning analysis for the benefit of the co-owners and/or their customers. However, the results of the planning analysis for this project are particularly robust, both in terms of the degree of forecasted PVRR benefits over the project life as well as the relatively short time period before the forecasted PVRR savings of the project exceeds its capital PVRR. In other words, even if future federal legislation on CO_2 emissions affected Columbia as early as the end of 2017, the project is still predicted to be cost effective as defined by a comparison of the total PVRR for the capital investment to the 2017 cumulative PVRR associated with the savings due to continued operation of Columbia with the proposed pollution control projects.