

STATE OF NEW HAMPSHIRE  
PUBLIC UTILITIES COMMISSION

DG 08-107

In the Matter of:  
Concord Steam Corporation  
Transfer of Utility Assets/Distribution Upgrades/Steam Purchase Agreement

Direct Testimony

of

Robert J. Wyatt  
Utility Analyst III – Gas & Water Division

December 31, 2008

1                                    **New Hampshire Public Utilities Commission**  
2                                    **Concord Steam Corporation**  
3                                    **Petition for Transfer of Utility Assets, Distribution Upgrades, and**  
4                                    **Steam Purchase Agreement**  
5                                    **DG 08-107**

6    **Q.    Please state your name, occupation and business address.**

7    **A.**    My name is Robert J. Wyatt. I am employed by the New Hampshire Public Utilities  
8           Commission (Commission) as a Senior Utility Analyst. My business address is 21 South  
9           Fruit Street, Suite 10, Concord, New Hampshire 03301.

10 **Q.    Please summarize your educational and professional experience.**

11 **A.**    Please see Attachment RJW-1.

12 **Q.    Have you testified as a Staff witness before this Commission in previous dockets?**

13 **A.**    Yes I have, in cost of gas, cost of (steam) energy and other gas and steam related  
14           proceedings.

15 **Q.    What is the purpose of your testimony in this proceeding?**

16 **A.**    The purpose of my testimony is to provide Staff's recommendation regarding Concord  
17           Steam's proposed transfer of utility owned assets to Concord Power, an unregulated  
18           affiliate company, Concord Steam's proposed distribution system enhancements and  
19           upgrades, and the impact of certain aspects of the proposed restructuring and Steam  
20           Purchase Agreement with Concord Power on Concord Steam's rates. Specifically, I will  
21           address the operations and maintenance (O&M) under the restructured Company and fuel  
22           charges contained in the Steam Purchase Agreement.

23 **Q.    Please summarize Staff's recommendation on Concord Steam's proposed transfer of**  
24 **utility-owned equipment to its non-regulated affiliate Concord Power and Steam.**

1    **A.**    Staff recommends that the Commission approve the proposed transfer of certain utility  
2           equipment as described in the petition, subject to the receipt of all approvals necessary for  
3           the project to be carried out.

4    **Q.**    **Can you describe the utility equipment that Concord Steam is proposing to transfer**  
5           **to Concord Power and Steam?**

6    **A.**    Yes. Concord Steam currently owns two power generating turbines, a diesel back-up  
7           generator, certain wood boiler accessories, a tractor and trailers, a truck scale, front end  
8           loader and truck dump equipment that will no longer be needed for utility operations under  
9           the proposed restructuring. Concord Steam will receive \$1.5 million for the sale of this  
10          equipment to Concord Power. The proceeds from this sale exceed the initial capital cost,  
11          the current book value (initial cost less depreciation) and estimated market price of the  
12          equipment (although no appraisal was performed, Concord Steam surveyed the cost of  
13          such equipment, both new and used). Concord Power is paying a premium but avoids  
14          having to purchase new, more expensive equipment, or having to find comparable used  
15          equipment that may be for sale.

16   **Q.**    **Please summarize Staff's recommendation on Concord Steam's proposed distribution**  
17          **system upgrades and enhancements.**

18   **A.**    Staff recommends that the Commission approve the distribution system upgrades and  
19          enhancements as described in the petition, subject to the receipt of all approvals necessary  
20          for the project to be carried out. For example, it is understood that the Commission will  
21          have the opportunity to review the prudence and reasonableness of the actual costs of the  
22          upgrades and enhancements and that further steps to reduce line losses may be warranted.  
23          The upgrades and enhancements provide access to less expensive steam and will reduce

1 line losses.

2 **Q. Can you describe the distribution system upgrades and enhancements Concord**  
3 **Steam is proposing?**

4 **A.** Yes. Concord Steam is proposing to install approximately 6,800 feet of new 16 inch steam  
5 pipe which will connect the new steam plant with the existing steam distribution system.  
6 Concord Steam, in its ongoing efforts to reduce steam losses on its system, will also re-  
7 insulate approximately 25 percent (8,000 feet) of troublesome 12-inch steam distribution  
8 pipe, located mostly on Pleasant and State streets that was installed in the early 1980's.  
9 The company will finance the estimated \$4 million project by issuing debt, such as a tax  
10 exempt bond issuance through the Business Finance Authority.

11 **Q. Would you describe the various aspects of the proposed restructuring and Steam**  
12 **Purchase Agreement with Concord Power on Concord Steam that will impact**  
13 **Concord Steam's rates?**

14 **A.** Yes, Concord Power and Steam, LLC (Concord Power) will own and operate the biomass  
15 steam and power generation plant. Concord Steam, an affiliate company, will enter into a  
16 long term steam purchase agreement with Concord Power. Concord Power produces  
17 steam to generate electricity to be sold to local electric utilities or back to the power grid,  
18 as well as producing steam to provide Concord Steam's steam requirements. With the  
19 possible exception of certain personnel needed to maintain the distribution system, most  
20 Concord Steam employees will be transferred to Concord Power. Wood yard operations  
21 will be transferred to the control of Concord Power. All steam plant costs associated with  
22 the production of steam will be split between Concord Steam and Concord Power on a  
23 proportional basis based on steam usage of each unit. All joint steam plant labor costs will

1 be split similarly. Concord Steam estimates a reduction in O&M and steam production  
2 costs that will result in an overall rate reduction to its customers of approximately 30%.

3 **Q. Will the Commission be able to review the prudence of O&M and fuel costs charged**  
4 **to Concord Steam by Concord Power?**

5 A. Yes. Even though Concord Power will not be regulated by this commission, the  
6 Commission will be able to fully review energy costs used to determine Concord Steam's  
7 rates. The Company stated during the discovery process that "*it anticipates that the*  
8 *review of costs would include the prudence/reasonableness of the costs incurred, not*  
9 *simply whether the costs were in fact incurred*" and were properly payable under the terms  
10 of the Steam Purchase Agreement. This clarification of section 4 of the petition should be  
11 made a condition to any approval of the Steam Purchase Agreement.

12 **Q. How will Concord Steam or the Commission be able to access the information**  
13 **necessary to make this judgment?**

14 A. Article 2.3.1 requires Concord Power to maintain records with respect to operation and  
15 maintenance of the steam boiler plant and allows, upon request, for Concord Steam to  
16 review all plans and records of such inspections, maintenance and repairs. Articles 4.2 and  
17 18 of the Steam Purchase Agreement allows Concord Steam to examine all Concord  
18 Power's books and records necessary to substantiate that charges and calculations set forth  
19 on all invoices to Buyer were valid and proper. The Commission, as is the case now, is  
20 able to review the books and records related to the calculation and setting of rates and  
21 charges that are billed to Concord Steam customers plus those records assuring proper  
22 operational and maintenance practices supporting safe and reliable operation of the steam  
23 plant and distribution system.

1 **Q. Will Concord Steam be able to generate steam on its own should the Concord Power**  
2 **steam supply be curtailed for any reason or if it is more cost effective for Concord**  
3 **Steam to do so?**

4 A. Yes. Concord Steam will own two backup natural gas fired steam boilers capable of  
5 providing 100% of its customer steam load. These steam boilers are not capable of  
6 providing steam to Concord Power for electric generation but are to be used to produce  
7 distributed steam as needed by Concord Steam customers.

8 **Q. The new plant's primary boiler is designed to burn wood. What happens if other fuel**  
9 **sources are more economical for producing steam?**

10 A. Short term, the only alternate fuel choice would be natural gas in the two backup boilers  
11 owned by Concord Steam, and if natural gas is cheaper, Concord Steam can elect to  
12 produce its own steam. The Steam Purchase Agreement provides that Concord Power will  
13 bill Concord Steam for energy at the lower of its actual fuel source or what it would have  
14 cost to produce steam using natural gas. Long term, the natural gas boilers could be  
15 refitted relatively inexpensively to burn alternative fuels such as fuel oil, assuming that the  
16 Steam Purchase Agreement allows for that or is amended to allow for that.

17 **Q. What are planned and unplanned steam plant outages and how are the costs of**  
18 **planned and unplanned plant outages to be treated?**

19 A. The Steam Purchase Agreement addresses the possibility of both planned and unplanned  
20 outages. Planned outages, temporary in nature, will allow for planned maintenance on the  
21 primary boiler and/or its support systems. Concord Steam will be given a 30 day advance  
22 notice of this type of outage. Each year, Concord Power will provide Concord Steam with  
23 a schedule of all planned outages during the following service year.

1 Unplanned outages are unexpected steam plant outages that would require Concord  
2 Power to provide Concord Steam with steam service from Concord Steam's backup  
3 boilers.

4 Regardless of the type of steam outage that may occur (i.e., planned or unplanned),  
5 the Steam Purchase Agreement provides under Article 1.16, Replacement Steam Cost, that  
6 Concord Power will reimburse Concord Steam, when applicable, for any additional fuel  
7 costs as a result of any outage.

8 **Q. Please explain in greater detail how the proposed restructuring will impact steam**  
9 **production plant operations and allocate Operation and Maintenance (O&M) costs**  
10 **between Concord Power and Concord Steam.**

11 A. Concord Steam will purchase its steam from Concord Power in accordance with the Steam  
12 Purchase Agreement. Former Concord Steam personnel will now be employed by  
13 Concord Power but otherwise perform basically the same tasks as before the restructuring.  
14 Total steam production on an annual basis will be measured and divided between Concord  
15 Steam and Concord Power. Concord Steam's requirements will be of the highest priority,  
16 with remaining steam used by Concord Power to generate electricity. Annually, the  
17 company expects the steam division to use approximately 15% and the power division to  
18 use the remaining 85% of generated steam. O&M costs associated with steam production  
19 will be split accordingly. Certain other O&M costs, such as turbine generator costs, steam  
20 distribution system costs, etc., will be assigned to the specific division to which those costs  
21 belong.

22 **Q. Please explain how the steam price will be determined for Concord Steam under the**  
23 **provisions of the Steam Purchase Agreement.**

1 A. The steam price to Concord Steam will consist of three components, a capacity charge, an  
2 O&M charge and a fuel charge. The capacity charge relates to the projected debt service  
3 payment and is explained in greater detail in Mr. Frink's testimony. The O&M charge is  
4 based on non-fuel related expenses such as labor, insurance, parts, consumables, property  
5 taxes, etc., for the ongoing operation and maintenance of the steam plant. No turbine  
6 generator related costs shall be included in the O&M charge. The O&M charge will be  
7 split between Concord Power and Concord Steam based on the Steam Sales Percentage  
8 and projected annual steam sales. The fuel charge to Concord Steam is the sum of its  
9 percentage of total wood fuel costs related to the main steam boiler based on a formula  
10 defined in the Steam Purchase Agreement plus any natural gas fuel cost related to the  
11 backup boilers.

12 **Q. Are the formulas for determining Concord Steam's share of Concord Power's O&M**  
13 **and fuel costs reasonable?**

14 A. Based on the current assumptions that assign approximately 15 percent of the total O&M  
15 and fuel costs to the steam division, yes, I believe the costs are reasonable. However, as  
16 Mr. Frink spells out in his testimony, unless there is protective language in the Steam  
17 Purchase Agreement, there is a risk of O&M costs shifting from Concord Power to  
18 Concord Steam if electric generation is less than expected.

19 As for fuel costs, the formula is reasonable because Concord Steam only pays for  
20 the fuel used to meet its requirements and there is no risk of cost shifting due to lower than  
21 expected electric generation.

22 **Q. What are the advantages of the proposed restructuring?**

23 A. I will focus on the advantages to Concord Steam, the regulated utility under the

1 Commission's jurisdiction. Currently, Concord Steam leases its boiler plant from the state,  
2 leases and operates the wood yard, and is responsible for all O&M, labor and overhead  
3 expenses. Under the restructuring, Concord Steam will achieve economies of scale  
4 savings on energy costs (reduced cost of energy rate) and lower O&M costs resulting from  
5 the prorated cost sharing between the power and steam divisions (lower base rates).

6 Concord Steam will achieve greater system reliability resulting from the fact it will be  
7 receiving steam from a new steam plant. Reliability will also be improved by the  
8 Company's proposed distribution system enhancements and improvements. Concord  
9 Steam projects that steam losses (unaccounted for steam) will be reduced by 28,000 Mlbs  
10 annually as a result of the proposed re-insulation of distribution system steam pipe where  
11 needed. This steam loss reduction will have a direct impact on customers' steam rates, as  
12 the savings due to lower fuel costs will be passed directly to customers through the cost of  
13 energy.

14 **Q. Will there be increased risks to Concord Steam or its customers as a result of the**  
15 **proposed restructuring?**

16 A. Mr. Frink points out certain risks associated with the restructuring, but operationally, the  
17 restructuring will actually decrease risk, as antiquated equipment and weak areas in the  
18 distribution system will be replaced or upgraded. The Company has indicated to Staff that  
19 even though it will take on additional equity partners in the new venture, it will continue to  
20 be managed and operated by essentially the same experienced personnel as now.

21 **Q. Does this conclude your testimony?**

22 A. Yes, it does.

## Robert J. Wyatt

### Educational Background

Mr. Wyatt graduated from the New Hampshire Technical Institute in 1985 with an Associate in Engineering degree majoring in Electronic Engineering Technology. He completed his Bachelor of Science degree requirements in 1990 at New Hampshire College, now known as Southern New Hampshire University. His major was Technical Management. Mr. Wyatt has also completed an MBA graduate course in Information Sources and Research Methods.

Throughout his professional career, Mr. Wyatt has taken various professional development and computer software courses. In 2002 he completed professional development workshops for *Natural Gas Procurement and Hedging* and *The Basics, An Introductory Course on Rate Design* offered by the Center for Public Utilities at New Mexico State University. In 2004 Mr. Wyatt attended a two-day conference/workshop titled the *North American Natural Gas Supply Outlook* put together by EUCI (Electric Utility Consultants Inc.) in Denver. During the past ten years Mr. Wyatt has also attended several *The LDC Forum*, two-day conferences in Boston focusing on issues related to gas buyers and sellers.

### Professional Experience

In 1985, Mr. Wyatt accepted a supervisory position in the Customer Relations Department of EnergyNorth, Inc., holding company for EnergyNorth Natural Gas, Inc., a gas utility based in NH. During that time Mr. Wyatt was recognized for developing a tracking system that flagged large volume meter malfunctions before they became major revenue and customer relations problems. He was also involved with a conversion to a new customer information system. He became familiar with many aspects related to customer relations.

In 1988, Mr. Wyatt accepted a promotion into the Gas Supply Department of EnergyNorth, Inc. as the Gas Dispatch Supervisor. In this position Mr. Wyatt was responsible for the daily dispatch of all gas supply needed to meet customer demand. He also was responsible for maintaining gas supply inventories at all pipeline storage and peaking facilities. He supervised the gas supply function at the company owned production plants.

In 1989, Mr. Wyatt was promoted to Gas Supply Analyst and in 1994, to Senior Gas Supply Analyst at EnergyNorth, Inc. In these analyst positions, Mr. Wyatt was responsible for the development and maintenance of various daily, seasonal and longer term load forecasting and supply planning models. He also contributed to gas supply related regulatory reporting to the Federal Energy Regulatory Commission, the Department of Energy/Energy Information Agency, and the NH Public Utilities Commission. He was involved in short and long term supply planning, least cost supply planning/analysis and contract administration. He administered the wholesale gas interruptible sales and unbundled transportation programs. During this time Mr. Wyatt was also a member of the Northeast Gas Association and participated in many of their management development workshops.

In 2000, after KeySpan acquired EnergyNorth, Mr. Wyatt had to make a choice to either accept a position as a Gas Supply Analyst with newly formed KeySpan Energy Delivery New England, working in Boston, or accept a position as Industrial Buyer for Hitchiner Manufacturing Company, Inc., in Milford, NH. He chose to accept the position with Hitchiner and in 2001 was promoted to Purchasing and Energy Analyst. Mr. Wyatt was responsible for the procurement of all raw materials used in this high volume investment casting foundry. He also contracted for all natural gas used at this facility and developed a comprehensive energy plan for the company, parts of which were incorporated into the company's strategic plan. Hitchiner was one of the largest single energy users in NH. He was a member of the company's energy conservation committee and also reported to senior management on current electric and/or natural gas related issues. Mr. Wyatt represented the company at monthly NH Business and Industry Association's Energy and Regulatory Affairs committee meetings.

In 2002, Mr. Wyatt accepted a position as Utility Analyst III in the Gas & Water Division of the New Hampshire Public Utilities Commission. His primary duties at the NHPUC have been to review all cost of gas filings and to present Staff findings to the Commission at COG hearings. Mr. Wyatt has also been involved in steam utility cost of energy dockets and operations investigations. In 2006 Mr. Wyatt was lead analyst in an investigation of thermal billing practices of one regulated gas utility in New Hampshire and discovered a change in billing methodology and over-billing, resulting in a large refund back to ratepayers. He is also involved with many other gas and steam utility issues that are related to or require public utility regulation.