

**STATE OF NEW HAMPSHIRE**

## Inter-Department Communication

**DATE:** August 18, 2011**AT (OFFICE):** NHPUC**FROM:** Robert J. Wyatt   
Utility Analyst IV, Gas & Water Division**SUBJECT:** DG 11-150  
Concord Steam Corporation  
Petition for Approval of a Special Contract -  
City of Concord, New Hampshire**TO:** Commissioners  
Docket File  
Service List**BACKGROUND**

On June 28, 2011, the petitioner, Concord Steam Corporation ("Concord Steam" or "Company"), filed with the New Hampshire Public Utilities Commission (Commission) a petition for approval of a special contract with the City of Concord, New Hampshire ("City") for service in connection with multiple office locations owned by the City in and around the City Hall complex in downtown Concord. Concord Steam has been providing retail steam service to the City at various locations for many years.

To ensure that it has a long term supply of steam at reasonable cost in order to be able to serve its customers at reasonable rates, Concord Steam has entered into a Steam Purchase Agreement ("SPA") for its steam supply requirements from Concord Power and Steam, LLC ("Concord Power"). Concord Steam is an affiliate of Concord Power.<sup>1</sup> Concord Power intends to develop an 18 MW wood-fired steam boiler-electric generating unit (the "Unit") which will be the source of the steam supply to be provided to Concord Steam under the SPA.

The financing that is necessary for Concord Power to be able to construct the Unit cannot be obtained unless the Unit's electric generation output has been fully or nearly fully subscribed. The City, along with the State of New Hampshire ("State"), desires to support the development of the Unit because it is expected to result in lower steam costs for all customers of Concord Steam, including the City, than if the Unit is not constructed. In addition, City's purchases of steam contribute toward recovering the fixed costs incurred by Concord Steam to serve all of its customers. Therefore, Concord

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<sup>1</sup> Order No. 24,969 (May 22, 2009) the Commission indicated that the terms of the Steam Purchase Agreement (SPA) were reasonable but deferred final approval of the SPA pending receipt of information not available at that time, such as the identity of the equity investor, arrangements with the investor, terms of the debt financing and lease or ownership arrangements for the wood yard and land for the plant site.

Steam is willing to enter into this special contract if, as part of the contract, the City commits to remaining a customer of Concord Steam for a term of ten (10) years with two five (5) year options to renew and a portion of the uncommitted electric power output (approximately 4,300 MWH) of the Unit is contracted for by the City so that construction of the Unit can be financed.

## **STAFF INVESTIGATION AND ANALYSIS**

On August 9, 2011, the Commission issued Nisi Order 25,260 (Docket No. DG 11-135) approved the special contract between the Concord Steam and the State, with certain conditions. That special contract, combined with the special contract between the Company and City, should enable Concord Steam to obtain the financing necessary to build a new plant and lower steam rates for all of its customers. Other than two exceptions, the terms and conditions contained in the State and City special contracts are generally congruent. The Company's response to Staff Data Request 1-7 identifies the specific differences between the State and City contracts, Attachment RJW-1.

The proposed special contract, if approved by the City Council at its meeting on August 24, 2011, will be executed by the Concord City Manager and Concord Steam shortly thereafter. The agreement specifies that the City will purchase all of its steam requirements from Concord Steam for the term of the special contract. This term will commence on January 1, 2014 (after the expected completion date for the new combined steam/power plant), and is structured as an initial ten-year term, with two five-year renewal options (non-renewal requires two-year advance notice and any changes are subject to the prior approval of the City Manager and City Council). The City will pay an "initial base rate" (i.e., the "Usage Rate" referred to in Concord Steam's tariff) of \$5.00 per Mlb of steam under the terms of the special contract. This \$5.00/Mlb base rate/Usage Rate will increase annually, beginning on January 1, 2015, by the annual percentage increase in the Gross Domestic Product Implicit Price Deflator. The City will pay the other components of Concord Steam's tariff (i.e., Meter Charge and Cost of Energy components, and any applicable tariff surcharges) at the same rates applied to all customers under Concord Steam's tariff.

Staff has met with Company representatives and issued discovery related to both the City and State petitions. In addition to the material provided through the discovery process, Staff reviewed related dockets that were pertinent to this case, including DG 08-107 which pertains to the SPA between Concord Steam and Concord Power, and DG 09-154, pertaining to the special contract between the Company and the Concord School District, on behalf of Rundlett Middle School.

Order No. 25,030 (October 27, 2009), approved the special contract between Concord Steam and the Concord School District (School District). The Commission found that the discounted delivery rate was in excess of the incremental costs associated with serving that load and that the term of the contract was appropriate in that it allows the School

District the opportunity to recoup its contribution in aid of construction for the steam line extension to the school.

The terms of the proposed contract between Concord Steam and the City, as was also true of the terms of the contract with the State, closely mirror those approved for the School District, with the exception of the two options for renewal of the contract, treatment of possible renewal credits (“RECs”), the ability to terminate the contract if the usage rate exceeds the tariff rate and some minor differences that are discussed later in this recommendation. As in the contract between the Company and the School District, the discounted rate (i.e., the Usage Rate, as listed in the Concord Steam tariff) exceeds the incremental cost to serve that load<sup>2</sup> and provides for annual usage rate increases indexed to inflation, helping to ensure that the discounted delivery rate will exceed long-run marginal costs over the life of the contract. Attachment RJW-2 demonstrates the Company’s approximate incremental cost to serve in both 2008 and 2010 and Attachment RJW-3 provides the spreadsheet template and an example of how the special contract usage rates will be adjusted each year, based on the change in the Gross Domestic Product from year to year.<sup>3</sup>

There are two significant differences between the State and City special contracts. The first pertains to potential RECs savings. RECs savings will be applied as a credit to the cost of energy and thereby reduce the cost to all customers. The State special contract requires an increase in the State’s usage rate equal to 50% of RECs savings, so that one half of the RECs savings that the State would otherwise realize will be paid to Concord Steam through an increase in the State’s usage rate. As the State will not be subject to increases in its usage rate over the term of the contract, other than through the inflation adjustment, allowing half of those savings to be recovered by Concord Steam as distribution revenues will help lessen the impact of future rate increases on customers not under special contract. The City contract does not require an increase in the usage rate related to the value of future RECs. Unlike the State, the City will realize one hundred percent of any RECs savings, if those additional savings materialize. The City contract terms related to RECs would not increase distribution revenues that would help to lessen the impact of future rate increases on customers not under special contract. As noted below, Staff opposes this feature of the Concord Steam/City contract.

The other significant difference between the State and City special contracts is that under the State contract the usage rate cannot exceed the tariff rate, whereas the contract modifications for usage rate under the City contract essentially state that if the usage rate exceeds the lowest tier of the tariff base rate, the City would then have the option of terminating the contract and taking service under the terms of the applicable tariff.

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<sup>2</sup> The Company asserted in response to Staff data request 1-1 that the purchase price of steam from Concord Power will include the normal incremental costs of fuel, ash disposal, boiler chemicals and boiler plant electricity requirements. The only item that will remain a cost to Concord Steam that is a function of steam sales is the sewer charge from the City, which is less than the proposed Usage Rate in the Agreement.

<sup>3</sup> As reflected in line no. 1 of the U.S. Department of Commerce, Bureau of Economic Analysis, Table 1.1.9. Implicit Price Deflators for Gross Domestic Product, quarterly format, Quarter III results each year.

Staff opposes these changes for two reasons. First, as described above, the benefit of allowing half of the RECs credit savings to both the City and State to be recovered by Concord Steam as distribution revenues should help mitigate the frequency of subsequent base rate filings and lessen the impact of future rate increases on customers not under special contracts. The term length of both the City and State agreements is potentially twenty years, a considerable length of time to be excluded from future tariff base rate calculations. Second, the last sentence in section 2, the Usage Rate and Account Billing section of the State contract caps any adjusted usage rate at the current applicable tariff base rate, making the modification of the City special contract related to this issue unnecessary. The State accepted these provisions, along with the expected overall benefits in its special contract in DG 11-135. Staff recommends these provisions be required in the City's special contract as well.

On August 2, 2011, Concord Steam submitted its response to Staff data request 1-7, expressing its reservations regarding the terms in the City contract that differ from the State contract. In its response the Company states, "We feel the contract should duplicate the State contract."

As for the term of the steam special contract, the proposed contract is tied to the expected length of the electric power contract between Concord Power and the City and may result in the City paying higher electric costs than they would otherwise incur absent the contract, thereby resulting in a potential indirect subsidy of the Concord Power system by the City, the benefits for which (through more-efficient steam generation) being distributed among Concord Steam customers generally.

In Docket DG 08-107, regarding the SPA, Concord Steam testified that the overall cost of steam service would drop by approximately 30% once the new power and steam plant was built whereas continuing operations at the existing plant would require significant upgrades, the cost of which would lead to a significant rate increase. At that time Concord Steam estimated a total rate of \$24.82 per Mlb with a new plant compared to a rate of \$63.02 per Mlb without the plant. Based on updated costs, the estimated overall rates are now \$25.60 and \$42.40, respectively [See Attachment RJW-4]. The special contract that will enable construction of the new plant will result in substantial overall savings to all Concord Steam customers, with varying bill impacts on individual customers. An analysis of the rate impact on customer segments indicate that all customers will benefit from the efficiencies of the new power and steam plant. Although the State and City will achieve the greatest savings, this benefit is offset by their acceptance of additional risk exposure related to potentially higher electricity costs. The results are summarized below:

Table 1

Steam Customer Segment	Current Overall Steam Rate	Estimate of Overall Steam Rate without New Steam Plant	Estimate of Overall Steam Rate with New Steam Plant	Estimate of Rate Change % without new plant	Estimate of Rate Change % with new plant
City and State Buildings	\$34.37	\$43.26	\$22.29	26%	-35%
Other Special Contact Accounts	\$25.93	\$29.01	\$24.01	12%	-7%
Remaining Tariff Accounts	\$35.57	\$44.89	\$28.77	26%	-19%
Total	\$33.97	\$42.40	\$25.60	25%	-25%

The bill impacts do not reflect the incremental cost of the 6,800 foot line extension that will be required to connect the new plant to the steam distribution system or the system upgrades to repair and re-insulate approximately 5,500 feet of existing steam pipes to improve their performance and decrease line losses. In Docket DG 08-107 Concord Steam estimated the cost of the interconnection and distribution system upgrades would be \$4 million. The cost to connect the new plant to the steam distribution system is necessary to provide service to all customers and the system upgrades will reduce line losses and reduce the cost of energy rates, thereby benefiting all customers. Therefore, these costs should be recovered from all customers, including special contract customers. In DG 11-135, Concord Steam's petition for approval of a special contract between the Company and the State, Staff recommended that the Commission consider assessment of a surcharge applicable to all customers to recover these costs.

On July 21, 2011, in Docket DG 11-135, Concord Steam filed a letter in response to Staff's recommendations stating that the Company does not oppose the proposed conditions and that Concord Power and Steam, LLC will pay for the cost of the line extension to connect the new plant to the existing steam distribution system to ensure that any future surcharges are small and will result in lower energy costs. The minor differences referenced earlier, between the approved Concord Steam/School District special contract and proposed Concord Steam/City special contract are clarifying language regarding metering charges and a rate adjustment in the event of thermal renewable energy credits or certificates.

The Concord Steam/School District special contract states that the base rate discount does not apply to the meter charge, whereas the Concord Steam/City special contract is silent on that point. Concord Steam has clarified with the City that the base rate discount rate does not apply to meter charges. Consistent with all Concord Steam special contracts, the discount applies only to the Usage Rate portion of the City's steam bills. Meter charges and the cost of energy rates are to be billed at the applicable effective tariff rates. As noted earlier, the proposed special contract includes a provision that would further reduce steam costs through a credit to Concord Steam's Cost of Energy of any value obtained through thermal renewable energy credits or certificates which may be realized as part of the renewable portfolio standard established under RSA 362-F, if adopted in New Hampshire. This reduction in steam costs would benefit all steam customers and would not be limited to the City's steam accounts, but unlike under the terms of the Concord Steam/State special contract, the City special contract, as filed with the petition in this docket, will not forgo a share of those savings through an increase in its usage rate.

Concord Steam expects that the proposed special contract with the City will represent approximately 3% of the steam load of the company in 2014.

## **STAFF RECOMMENDATION**

Staff recommends that the Commission not approve the special contract between Concord Steam and the City as filed, but rather approve a revised contract that includes the same terms and conditions as contained in the special contract between Concord Steam and the State. Specifically, the terms related to RECs credits and capping the usage rate increases contained in Section 2 of the contract in the City contract should be the same terms as provided for in the State contract. The contract should be amended, as conditions for the Commission's approval, to: (1) specify that, during periods when Concord Steam receives thermal renewable energy credits, there will be an offsetting adjustment to the Usage Rate equal to 50% of the per Mlb credit to the Cost of Energy rate; (2) to specify that the Usage Rate is not to exceed the tariff usage rate; and (3) to eliminate the provision whereby the City could terminate the contract if the usage rate exceeds the tariff rate.

With the integration of the recommended revisions, Staff considers the proposed special contract to be in the public interest, as required by RSA 378:18. Specifically, the special contract offers Concord Steam the opportunity to complete its long-planned combined power and steam plant, which would offer all Concord Steam customers, along with the City, economic benefits derived from the plant's increased efficiency, job retention and additional new jobs created, in combination totaling approximately 100 full-time positions and additional property tax revenues. The changeover to the new plant would also provide significant environmental benefits to the general public, as the new plant would have modern pollution controls. Approval of the special contract will enable the Company to finance and move forward with the construction phase of building the new plant.

In addition to requiring the contract revisions specified above, Staff recommends that the Commission include language in an approval Order that indicates that:

- the special contract rate applies specifically to a discount to the usage rate portion of the bill for each City steam account. The normal effective tariff rates will continue to apply to the Meter Charge and Cost of Energy rates paid by the State, together with applicable surcharges;
- the Commission indicate in its approval Order that when Concord Steam seeks recovery of system upgrades designed to reduce line losses, expected to result in a lower cost of energy, recovery of the costs for the system upgrades will be through a surcharge applicable to all customers. Examples of such system upgrades include insulating or replacing leak prone segments of the distribution system. The surcharge would require Commission approval, based upon a petition by Concord Steam demonstrating that the investment is cost effective;

- at no time during the term of this agreement shall the discount to the usage rate be less than the initial special contract rate;
- Concord Steam will file annually, prior to each new contract year, the rate adjustment calculation using the template attached to this recommendation, to the New Hampshire Public Utilities Commission, referencing this docket number;
- Prior to the effective date of an Order Nisi approving the petition for a City special contract, Concord Steam must file a fully executed copy of a revised City of Concord special contract incorporating all of Staff's recommended changes required by the Commission order.

#### Attachments

Concord Steam  
DG 11-150 Concord Steam/City of Concord Special Contract  
DATA RESPONSE SET NUMBER 1

Date Request Received: 7/27/11  
Request No. Staff 1-7

Date of Response: 8/2/11  
Witness: Peter Bloomfield

REQUEST:

7. Please identify and explain all difference between the proposed special contract with the City and the proposed special contract with the State.

RESPONSE:

The only significant difference between the two contracts is in section 2 and is related to what happens if thermal RECs are created. The State contract calls for the revenue from these thermal RECs to be used to increase the usage rate to the State at a rate of 50% of the value, with the remaining 50% going to reducing the cost of energy to the State. The City has removed this feature, requiring that all of the benefit of the thermal RECs go to reduce the cost of energy. The two differing wordings are below in bold.

We were not able to change the wording in the proposed City contract as they had put it out for public notice without comment from us. We feel that the contract should duplicate the State contract, but what will not work is the wording that gives them “**value of the Thermal REC or the same economic benefit enjoyed by all Concord Steam customers who pay regular tariff rates, *whichever is greater.***” (italics added for emphasis). They should not get the greater of the two.

STATE 2: Usage Rate and Account Billing. The initial base rate applicable for all steam used by State under this Agreement shall be \$5.00/thousand lbs, which shall be escalated every year beginning as of the first anniversary of the commencement of the Term by the annual percentage increase in the Gross Domestic Product Implicit Price Deflator. **In addition, the State shall pay the cost of energy rate applicable to the volume of steam delivered to the State under Concord Steam’s tariff, as in effect from time to time. In addition, if a system of thermal renewable energy credits or thermal renewable energy certificates ( either being referred to as a “Thermal REC”) is adopted in New Hampshire as part of the renewable portfolio standard established under RSA 362-F or a substantially similar statutory or regulatory mechanism and the value of Thermal RECs is credited to customers through Concord Steam’s cost of energy rate or some other rate mechanism for Concord Steam, the base rate for steam charged to the State shall be increased by 50% of the amount that the cost of energy rate or such other rate mechanism is reduced as a result of implementation of Thermal RECs. The maximum allowable increase in the base rate is to increase it to equal the standard tariff base rate as approved by the NHPUC.**

CITY 2: Usage Rate and Account Billing. The initial base rate applicable for all steam used by City under this Agreement shall be \$5.00/thousand lbs, which shall be escalated every year beginning as of the first anniversary of the commencement of the Term by the annual percentage

increase in the Gross Domestic Product Implicit Price Deflator. In addition, the City shall pay the cost of energy rate applicable to all Concord Steam customers as approved by the New Hampshire Public Utilities Commission ("Commission") based on the volume of steam delivered to the City and the applicable meter charge for each of the Accounts, as set forth in Concord Steam's tariff as approved by the Commission from time to time. **In addition, if a system of thermal renewable energy credits or thermal renewable energy certificates (either being referred to as a "Thermal REC") is adopted in New Hampshire as part of the renewable portfolio standard established under RSA 362-F or a substantially similar statutory or regulatory mechanism and the value of a Thermal REC is credited to customers through Concord Steam's cost of energy rate or some other rate mechanism for Concord Steam, the City shall be entitled to the value of the Thermal REC or the same economic benefit enjoyed by all Concord Steam customers who pay regular tariff rates, whichever is greater. If at any time during the term of this Agreement, plus any agreed upon extensions, the base rate charged to the City under this Agreement exceeds the tariff base rate for the lowest tier block rate of the approved tariff, the City shall have the option, but not the obligation, to terminate this Agreement and purchase its steam supply from Concord Steam under the then applicable tariff.**

Section related to campus distribution system in the State contract was removed from the City contract.

# Attachment RJW-2

DG 11-150 Concord Steam/City of Concord Special Contract

**Attachment RJW - 2**  
8/11/2011

**Marginal Cost Calculation Comparisons**

Rundlett School Special Contract (DG 09-154) vs. State and City Special Contracts (DG 11-135, DG 11-150)

	DG 09-154 Projected Annual Costs 2008 {1}	FY 2008 Incremental Cost for Additional 50,000 Mlbs {1}	DG 11-135 Actual Costs FY 2010 {2}	Marginal Cost Estimate for Additional 50,000 Mlbs in 2014 {3}
Electricity	\$ 94,391	\$ 9,439	\$ 59,364	\$ -
Water/Sewer	170,586	34,117	157,455	31,651
Boiler Chemicals	36,129	7,226	8,700	-
Salt (softener, dealkalizer)	-	-	23,423	-
Air Permit Fees	37,199	7,440	-	-
Ash disposal	34,000	6,800	30,633	-
<b>Total</b>	<b>\$ 372,305</b>	<b>\$ 65,022</b>	<b>\$ 279,575</b>	<b>\$ 31,651</b>
Steam Sold	144,000 Mlbs	50,000 Mlbs	122,107 Mlbs	50,000 Mlbs
<b>Actual Marginal Cost</b>	<b>\$ 2.59 /Mlb</b>	<b>\$ 1.30 /Mlb</b>	<b>\$ 2.29 /Mlb</b>	<b>\$ 0.63 /Mlb</b>

1. DG 09-154 Exhibit 2, Concord Steam petition - Rundlett School Special Contract.
2. DG 11-135 Concord Steam response to Staff data request 1-1.
3. DG 11-150 Concord Steam response to Staff data request 1-1 notes that when the new plant is operational, Concord Steam will purchase its steam from Concord Power. The only incremental cost to Concord Steam to serve new load on its existing system will be for the discharge of additional water condensate into the city sewer system.

# Attachment RJW-3

DG 11-150 Concord Steam/City of Concord Special Contract

Attachment RJW - 3

8/11/2011

Example of the how the special contract Usage Rate will be adjusted from year-to-year.

Example of rate adjustment using 2006 as the hypothetical start of the contract term		2005-Q3	2006-Q3	2007-Q3	2008-Q3	2009-Q3	2010-Q3	2011-Q3	2012-Q3
Gross Domestic Product (re. Table 1.1.9, Quarterly format, line 1)	Q3 results not available until after Sep-30 each year	100.461	103.756	106.706	109.539	109.750	111.045		
Contract year		1	2	3	4	5	6	7	8
Calendar Year		2006	2007	2008	2009	2010	2011	2012	2013
Annual Rate Adjustment Factor (ARAF)	(Year "n" Q3)/(Year "n-1" Q3)		1.033	1.028	1.027	1.002	1.012		
Annual Usage Rate Adjustment (AURA)	ARAF "n" x AURA "n-1"	\$5.00	\$5.17	\$5.31	\$5.45	\$5.46	\$5.53		

Instructions and template to determine the actual Annual Usage Rate Adjustments:

- Step 1 Go to the following BEA web address: <http://www.bea.gov/national/nipaweb/DownsS2.asp>
- Step 2 Then, directly below the section header "1969 - Present" select the hyperlink to "XLS Format, Section 1"
- Step 3 Click on the tab for sheet "10109 Qtr" which is "Table 1.1.9 Implicit Price Deflators for Gross Domestic Product" in the quarterly format
- Step 4 From line no. 1 copy Quarter 3 GDP results when they become available, beginning with 2013 Q3 and for each successive year during contract term into the Annual Usage Rate Adjustment Template in line 14 below to calculate each year's rate adjustment factor

A	B	C	D	E	F	G	H	I	J	K	
1											
2											
3											
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5											
6											
7											
8											
9											
10											
11											
12											
13	<b>Annual Usage Rate Template for Special Contract</b>										
14	1. Gross domestic product	Input GDP IPD Q3 ->	2013-Q3	2014-Q3	2015-Q3	2016-Q3	2017-Q3	2018-Q3	2019-Q3	2020-Q3	2020-Q3
15											
16	Contract year		1	2	3	4	5	6	7	8	9
17	Calendar Year		2014	2015	2016	2017	2018	2019	2020	2021	2022
18	Annual Rate Adjustment Factor (ARAF)	(Year "n" Q3)/(Year "n-1" Q3)									
19	Annual Usage Rate Adjustment (AURA)	ARAF "n" x AURA "n-1"	\$ 5.00								
20											

Rev. 8/11/2011

# Attachment RJW-4

DG 11-150 Concord Steam Tariff Rate, Special Contract, and Revenue Analysis  
Scenario 1 - Current status and rates

Attachment RJW-4  
8/11/2011

Source: DG 11-150, Attachment to Concord Steam response to Staff Data Request 1-2

Steam Account(s)	Tariff Rate or Special Contract	Annual Steam use (Mbs) of Total Use		Number of Meters	Avg Meter \$/Month (4)	Meter Charge Revenue	Usage (Volume) Charge Revenue		Cost of Energy Rate	Cost of Energy Revenue	Total Revenue Blended rate	
		Input	C/C18				Input	I/C			Input	JxC
State of NH	Tariff rate	55,000	37.4%	39	\$19.76	\$ 9,250	\$ 16.21	\$ 891,750	\$17.80	\$ 979,000	\$ 1,880,000	\$ 34.18
City of Concord	Tariff rate	4,500	3.1%	7	\$16.67	\$ 1,400	\$ 18.54	\$ 83,430	\$17.80	\$ 80,100	\$ 164,930	\$ 36.65
Rundlett School	Special Contract	7,000	4.8%	1	\$30.00	\$ 360	\$ 5.00	\$ 35,000	\$17.80	\$ 124,600	\$ 159,960	\$ 22.85
Conant School (1)	Special Contract	2,000	1.4%	1	\$30.00	\$ 360	\$ 5.00	\$ 10,000	\$17.80	\$ 35,600	\$ 45,960	\$ 22.98
Kimball School (2)	Special Contract	2,000	1.4%	1	\$30.00	\$ 360	\$ 5.00	\$ 10,000	\$17.80	\$ 35,600	\$ 45,960	\$ 22.98
High School	Tariff rate	11,000	7.5%	4	\$30.00	\$ 1,440	\$ 17.65	\$ 194,200	\$17.80	\$ 195,800	\$ 391,440	\$ 35.59
YMCA	Special Contract	5,000	3.4%	3	\$25.83	\$ 930	\$ 13.48	\$ 67,400	\$17.80	\$ 89,000	\$ 157,330	\$ 31.47
Denev Realty	Special Contract	1,000	0.7%	1	\$25.00	\$ 300	\$ 13.48	\$ 13,480	\$17.80	\$ 17,800	\$ 31,580	\$ 31.58
All remaining customers	Tariff rate	59,500	40.5%	131	\$ 9.94	\$ 15,624	\$ 17.50	\$ 1,041,250	\$17.80	\$ 1,059,100	\$ 2,115,974	\$ 35.56
Sub Totals	City + State	59,500	40.5%	46	\$19.29	\$ 10,650	\$ 16.39	\$ 975,180	\$17.80	\$ 1,059,100	\$ 2,044,930	\$ 34.37
Sub Totals	Special Contract	17,000	11.6%	7	\$27.50	\$ 2,310	\$ 7.99	\$ 135,880	\$17.80	\$ 302,600	\$ 440,790	\$ 25.93
Sub Totals	Tariff Rate	70,500	48.0%	135	\$10.53	\$ 17,064	\$ 17.52	\$ 1,235,450	\$17.80	\$ 1,254,900	\$ 2,507,414	\$ 35.57
Totals	Combined	147,000	100.0%	188	\$13.31	\$ 30,024	\$ 15.96	\$ 2,346,510	\$17.80	\$ 2,616,600	\$ 4,993,134	\$ 33.97

Scenario 2 - Future status and estimated rates if new steam plant is not built

Steam Account(s)	Tariff Rate or Special Contract	Annual Steam use (Mbs) of Total Use		Number of Meters	Avg Meter \$/Month	Meter Charge Revenue	Usage (Volume) Charge Revenue		Cost of Energy Rate	Cost of Energy Revenue	Total Revenue Blended rate		Blended Rate Scenario 1 vs 2
		Input	C/C38				Input	I/C			Input	JxC	
State of NH	Tariff rate	55,000	37.4%	39	\$19.76	\$ 9,250	\$ 24.32	\$ 1,337,625	\$18.50	\$ 1,017,500	\$ 2,364,375	\$ 42.99	25.8%
City of Concord	Tariff rate	4,500	3.1%	7	\$16.67	\$ 1,400	\$ 27.81	\$ 125,145	\$18.50	\$ 83,250	\$ 209,795	\$ 46.62	27.2%
Rundlett School	Special Contract	7,000	4.8%	1	\$30.00	\$ 360	\$ 5.00	\$ 35,000	\$18.50	\$ 129,500	\$ 164,860	\$ 23.55	3.1%
Conant School	Special Contract	2,000	1.4%	1	\$30.00	\$ 360	\$ 5.00	\$ 10,000	\$18.50	\$ 37,000	\$ 47,360	\$ 23.68	3.0%
Kimball School	Special Contract	2,000	1.4%	1	\$30.00	\$ 360	\$ 5.00	\$ 10,000	\$18.50	\$ 37,000	\$ 47,360	\$ 23.68	3.0%
High School	Tariff rate	11,000	7.5%	4	\$30.00	\$ 1,440	\$ 25.60	\$ 281,590	\$18.50	\$ 203,500	\$ 486,530	\$ 44.23	24.3%
YMCA	Special Contract	5,000	3.4%	3	\$25.83	\$ 930	\$ 20.22	\$ 101,100	\$18.50	\$ 92,500	\$ 194,530	\$ 38.91	23.6%
Denev Realty	Special Contract	1,000	0.7%	1	\$25.00	\$ 300	\$ 20.22	\$ 20,220	\$18.50	\$ 18,500	\$ 39,020	\$ 39.02	23.6%
All remaining customers	Tariff rate	59,500	40.5%	131	\$ 9.94	\$ 15,624	\$ 26.25	\$ 1,561,875	\$18.50	\$ 1,100,750	\$ 2,678,249	\$ 45.01	26.6%
Sub Totals	City + State	59,500	40.5%	46	\$19.29	\$ 10,650	\$ 24.58	\$ 1,462,770	\$18.50	\$ 1,100,750	\$ 2,574,170	\$ 43.26	66.9%
Sub Totals	Special Contract	17,000	11.6%	7	\$27.50	\$ 2,310	\$ 10.37	\$ 176,320	\$18.50	\$ 314,500	\$ 493,130	\$ 29.01	11.9%
Sub Totals	Tariff Rate	70,500	48.0%	135	\$10.53	\$ 17,064	\$ 26.15	\$ 1,843,465	\$18.50	\$ 1,304,250	\$ 3,164,779	\$ 44.89	26.2%
Totals	Combined	147,000	100.0%	188	\$13.31	\$ 30,024	\$ 23.69	\$ 3,482,555	\$18.50	\$ 2,719,500	\$ 6,232,079	\$ 42.40	24.8%

Scenario 3 - Future status and estimated rates if new steam plant is built and State, City and School special contracts are in place

Steam Account(s)	Tariff Rate or Special Contract	Annual Steam use (Mbs) of Total Use		Number of Meters	Avg Meter \$/Month	Meter Charge Revenue	Usage (Volume) Charge Revenue		Cost of Energy Rate	Cost of Energy Revenue	Total Revenue Blended rate		Blended Rate Scenario 1 vs Scenario 2 vs 3	
		Input	C/C58				Input	I/C			Input	JxC		G+I+K
State of NH	Special Contract	55,000	37.4%	39	\$19.76	\$ 9,250	\$ 5.00	\$ 275,000	\$17.11	\$ 941,050	\$ 1,225,300	\$ 22.28	-34.8%	-48.2%
City of Concord	Special Contract	4,500	3.1%	7	\$16.67	\$ 1,400	\$ 5.00	\$ 22,500	\$17.11	\$ 76,995	\$ 100,895	\$ 22.42	-38.8%	-51.9%
Rundlett School	Special Contract	7,000	4.8%	1	\$30.00	\$ 360	\$ 5.00	\$ 35,000	\$17.11	\$ 119,770	\$ 155,130	\$ 22.16	na	na
Conant School	Special Contract	2,000	1.4%	1	\$30.00	\$ 360	\$ 5.00	\$ 10,000	\$17.11	\$ 34,220	\$ 44,580	\$ 22.29	na	na
Kimball School	Special Contract	2,000	1.4%	1	\$30.00	\$ 360	\$ 5.00	\$ 10,000	\$17.11	\$ 34,220	\$ 44,580	\$ 22.29	na	na
High School	Tariff rate	11,000	7.5%	4	\$30.00	\$ 1,440	\$ 11.00	\$ 121,000	\$17.11	\$ 188,210	\$ 310,650	\$ 28.24	-20.6%	-36.1%
YMCA	Special Contract	5,000	3.4%	3	\$25.83	\$ 930	\$ 10.00	\$ 50,000	\$17.11	\$ 85,550	\$ 136,480	\$ 27.30	-13.3%	-29.8%
Denev Realty	Special Contract	1,000	0.7%	1	\$25.00	\$ 300	\$ 10.00	\$ 10,000	\$17.11	\$ 17,110	\$ 27,410	\$ 27.41	-13.2%	-29.8%
All remaining customers	Tariff rate	59,500	40.5%	131	\$ 9.94	\$ 15,624	\$ 11.50	\$ 684,250	\$17.11	\$ 1,018,045	\$ 1,717,919	\$ 28.87	-18.8%	-35.9%
Sub Totals	City + State	59,500	40.5%	46	\$19.29	\$ 10,650	\$ 5.00	\$ 297,500	\$17.11	\$ 1,018,045	\$ 1,326,195	\$ 22.29	-35.1%	-48.5%
Sub Totals	Other Spec Contr	17,000	11.6%	7	\$27.50	\$ 2,310	\$ 6.76	\$ 115,000	\$17.11	\$ 290,870	\$ 408,180	\$ 24.01	-7.4%	-17.2%
Sub Totals	Tariff Rate	70,500	48.0%	135	\$10.53	\$ 17,064	\$ 11.42	\$ 805,250	\$17.11	\$ 1,206,255	\$ 2,028,569	\$ 28.77	-19.1%	-35.9%
Totals	Combined	147,000	100.0%	188	\$13.31	\$ 30,024	\$ 8.28	\$ 1,217,750	\$17.11	\$ 2,515,170	\$ 3,762,944	\$ 25.60	-24.6%	-39.6%

Notes:

- (1) Conant school is not a customer now, but will come on as a special contract in 2012.
- (2) Kimball school was a standard tariff customer for part of 2010 and will return as a special contract in 2012. It was listed as special for comparison.
- (3) Steam usage amounts were approximately based on normalized weather.
- (4) Average Meter Charges and Usage Rates per month are a weighted average of seasonal and annual revenues divided by 12 months.