

Steam and Power Generation

CONFIDENTIAL MATERIAL IN COMM FILE Concord Steam P.O. Box 2520 Concord, NH 03302-2520 Fax: 603. 224. 7816 Tel: 603. 224. 1461

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Redacted DG14-233

May 4, 2015

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

### Re: DG 14 - 233 Report on status of Repowering Concord Steam

Dear Ms. Howland:

As ordered in 25-728, Concord is providing this status report.

New Plant/Repowering –

The air permit for the repowered plant has been issued. We plan to install a new Electrostatic Precipitator for particulate emission control, a catalyst to reduce CO emissions and an SCR to control NOx and rebuild the two primary wood fired boilers.

We are continuing to meet with the second about financing the construction of the rebuilt plant with a combination of taxable and tax free bonds. It is proposing to be the underwriter for the bonds. We are in the process of providing them with the critical components (i.e power contract, air permits and interconnect) in order to receive the firm commitment. We have hired counsel (Bill Ardinger at Rath, Young) to work with us on this issue.

We are finalizing some of the details of the PPA with about the sale of the excess electricity and RECs from the facility. has committed to moving forward with the purchase of the power that we would generate. The contract is complete, however the formula for the fuel passthrough is being reviewed.

We have met with Mike Connor of Administrative Services about steam sales to the State. We sent him the attached summary of the projected costs of steam with the new project, and are waiting on a reply.

Current Operations -



There was a fire at the plant on January 4 that damaged a small belt conveyor and burned up some control wiring. There were no injuries and there was no interruption in service to the customers, although the fire resulted in burning more gas and less wood than planned. The system was mostly back in service by January 13, and was completely operational by February 10.

Future Business plans -

We are focusing on the repowering of the existing plant and relying on the resultant reduction in steam rates. Once the project is well underway, we will be working on increasing sales.

Yours Truly,

Peter Bloomfield, PE President



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Steam and Power Generation

April 22, 2015

Mike Connor Dept of Administrative Services 25 Capitol St Concord, NH 03301

Re: Concord Steam

Dear Mike,

We have been working on a proposal for you for steam, and would like to meet with you to discuss it.

The basic structure would result in steam costs to the State of \$27/Mlb with a long term contract. I have attached a comparison sheet that is an extension of the one you used to compare natural gas vs steam.

As part of this, we will need to extend the plant lease for 25 years. We need this for the financing and the bond issue that TD Securities will be underwriting.

Let me know when you would like to meet.

Sincerely,

Peter Bloomfield President

cc: Senator Dan Feltes Councilman Van Ostern

## CSC Analysis Steam VS NG for NH Dept. of Admin Services

# Current Quantity and Prices:

Annual State of NH Steam Usa	ge for FY14		55,000	) Mlbs	
Current Steam Costs:	Energy Base	\$ \$	25.10 21.50 46.60	per Mlb _per Mlb	
Current Natural Gas Costs:	Supply Delviery	\$ \$	0.62 0.30 0.92	per therm _per therm	
Predicted '17 Steam Costs:	Energy Base	\$ \$	6.00 21.00 27.00	per Mlb _per Mlb	
Predicted '17 NG Costs:	Supply Delivery	\$ \$	0.82 0.32 1.14	per therm _per therm	
Assumptions: Natural Gas Boiler Efficiency MBtu's per Mlb of Steam 100 kbtu's per therm Capital cost of NG boilers Amortization (years) Annuallized capital costs, includ Loss of income to State if CSC (Lease, BET, property tax, oth Increased O&M from operation Water/Sewer, chemicals, elect See page 2 for detailed brea	ding interest closes ner state fees of individual tricty, etc.) akdown	at 2.5% 5) boilers		90% 1167 100 \$ 7,000,000 20 \$ 449,000 \$ 238,000 \$ 85,000	) )
Analysis using current rates Mlbs Therms	Quantity 55,000 713,167	Cost per \$ \$	- Unit 46.60 0.92	Other Costs \$ 772,000 Difference	Total Cost \$ 2,563,000 \$ 1,428,113 \$ 1,134,887
Analysis using predicted rates Mlbs Therms	Quantity 55,000 713,167	Cost per \$ \$	Unit 27.00 1.14	Other Costs \$ 772,000 Difference	Total Cost \$ 1,485,000 \$ 1,585,010 \$ (100,010)

#### CSC Analysis Steam VS NG for NH Dept. of Admin Services

#### **Detail sheet**

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Annual Usage Mlbs Steam		55,000
Income Loss	(Annual PUC Fee)	16,000
Income Loss	(State utility real estate taxes)	37,000
Income Loss	(BET Tax)	9,000
Income Loss	(Lease of steam plant)	101,000
Income Loss	(Air emissions Fees)	75,000

# TOTAL REVENUE LOSS 238,000

Increased O&M cost from operation of	individual boilers	
	Cost per Mlb	
Water & Sewer	0.1	5,500
Water Softening	0.08	4,400
Boiler Chemicals	0.08	4,400
Operating Cost	0.2	11,000
Maintenance Cost	0.4	22,000
Electricity	0.69	37,950
TOTAL ANNUAL OPI	ERATING COST	85,250

capital cost \$7,000,000 finance 20 yrs at 2.5% Boiler systems installed annuallized capital cost <u>449,030</u>