

Concord Steam

Steam and Power Generation

Concord Steam

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October 15, 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 –

We continue to work with TD Bank Securities on financing the construction of the rebuilt plant with a combination of taxable and tax free bonds. TD Securities has been selected to be the underwriter for the bonds. Two weeks ago they confirmed that the expected terms for the debt will be 5.8% on the tax free portion (8.9% on taxable for a blended rate of 6.3%) with a 20 year amortization and that there is still a strong market for the private placement of these bonds. There will be a small portion (10-15%) that will either be taxable bonds or bank debt, but the specific percentage has not been determined yet. The primary issue continues to be whether the State will stay with steam or not. This will delay financing until it is resolved.

We have gotten bids from contractors on the repowering of the facility, and the summary of estimated costs are attached. The total cost of the project is now estimated to be approximately \$23,000,000.

We are finalizing some of the details of the PPA with NHEC about the sale of the excess electricity and RECs from the facility. We are working with NHEC to finalize the purchase of the power that we would generate. The PPA contract still has to have some details worked out on price and conditions.

The State issued an RFP last spring to determine the cost/saving resulting from the conversion of the State buildings from steam to gas, and the response due date was September 23. Concord Steam submitted a proposal for a 10 year contract at a significantly reduce price from the present steam price. Our proposal and a summary of our analysis of the economics of steam vs gas is attached. We are expecting the cost of steam to our customers to be 30% less than the present rate. This is primarily due to two reasons, the plant efficiency will improve significantly with the plant rebuild, and the revenue from thermal RECS, both of these will serve to reduce the cost of energy.



The State has indicated that they will consider any proposal we bring them, but one of the State's major concerns is that they not be the only entity that commits to a long term (10 yr) contract. To offset The State's concerns, we have been working with the School board, the City and several downtown building owners to develop long term contracts, contingent on the State staying a customer and the upgrades to the plant being completed. We have a signed long term contract with the Concord School District, which is our second largest customer, and are working with the City to do the same. We will be submitting the contract with the School District to the Commission for approval in the next few days.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Current Operations -

Our annual summer maintenance season is over, heating season is approaching and we are preparing for that.

Yours Truly,

Peter Bloomfield, PE
President

Concord Steam Capital Cost estimate

General Conditions, project management	2,850,000
Site work	250,000
Concrete	550,000
Building and finishes	150,000
Equipment	7,385,000
Rebuild breeching	400,000
Controls + CEM	250,000
Mechanical	1,722,000
Electrical	1,150,000
Startup and Commissioning	255,000
Subtotal	14,962,000
Engineering	850,000
Subtotal	15,812,000
Construction Manager OH&P	6% 948,720
Total Construction contract	16,760,720
Retube #1, new burner	350,000
Upgrade #5	100,000
Well	150,000
Oil tanks cleanup and retirement	50,000
Demo/asbestos abatement	450,000
Interconnect	467,000
Permitting	40,000
Legal	100,000
Engineering	100,000
Building permit	100,000
Builders risk insurance	150,000
Miscellaneous/Contingency	1,300,000
	20,117,720
construct loan interest	1,100,000
Cost of financing	760,000
Debt service reserve	1,000,000
TOTAL	22,977,720
Contingency equity	2,000,000



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September 22, 2015

VIA HAND DELIVERY

Ms. Karen Rantamaki
Deputy Commissioner
Department of Administrative Services
25 Capitol Street
Concord, NH 03301

Re: Department of Administrative Services RFP #2015-176

Dear Ms Rantamaki,

The recent RFP as referenced requires that respondents to the proposal are only considered responsive if the proposal as submitted included eliminating steam from all of the facilities referenced. That requirement effectively made it impossible for Concord Steam to submit a responsive proposal. We believe that other consideration should be made to allow Concord Steam to provide an alternative to the standard approach as outlined in the RFP.

We would like to suggest an alternative concerning development of long-term energy savings by way of an arrangement between Concord Steam and the State. We understand that the Department is reviewing its energy efficiency options, including reviewing and analyzing the results of the RFP with respect to energy savings, and we would like to continue to cooperate with you to develop a proper baseline against which to achieve and measure savings with respect to heating options.

Concord Steam is proposing a 10 year contract for the supply of steam to the State, beginning in 2017. The Base (or Usage) rate would start at \$24/Mlb and increase each year by a CPI inflator. The Cost of Energy is projected to be \$5.72/Mlb, for an all-in rate for steam of \$29.72 for the first year, or a reduction of 36% from current rates. This significant reduction in energy rate is a result of the improved efficiency of the rebuilt plant and the additional income to the company from Renewable Energy Certificates that the rebuilt plant will qualify for. Concord Steam has signed a 13 year contract with the Concord School District along these same lines, and is working with the City and major commercial customers on similar 10 year contracts.

We would like to also offer to maintain the mechanical steam system equipment at a cost to be wrapped into a fixed monthly fee that can include labor and replacement parts. We would maintain the traps, valves, pumps, heat exchangers, and other mechanical steam system equipment. This would not include pipe repair, controls, or instrumentation. This would make the contract between Concord Steam and the State of NH reflective of the existing requirements in the RFP where the successful ESCO is required to provide on going maintenance and insure for proper operation of the mechanical system installed.

We have refined the preliminary analysis that we provided to you last May for your consideration, both in connection with review and analysis of the Department's RFP and with respect to discussions regarding possible future contractual arrangements between the State and Concord Steam. As shown in the attached analysis, our fundamental point is that the proper baseline for comparison of steam and natural gas options must assume that our proposed improvements are placed in service with the projected 36% decrease in steam costs, and that energy efficiency improvements that result from the RFP process also need to be recognized. When the environmental, energy and economic benefits of our proposed project are taken into account, the projected annual savings decline significantly and the "payback" period correspondingly increases.

The attached analysis compares three scenarios for comparing the costs of steam vs. natural case: (1) the original analysis you provided to us, which did not take into account the impacts of our projected improvements; (2) our proposal, which does take these impacts into account, as well as adjusting the steam usage for an average heating year; and (3) a third column which allows for efficiency improvements as a result of the RFP process.

The bottom line is that, with these refinements, it is questionable whether the proposed installation of brand new boilers and related capital improvements, fired by natural gas, would satisfy the 20-year payback requirement to be treated as an "energy cost saving measure." Further, this analysis is based solely on the "internal" project comparisons, and does not take into account any of the very important "external" impacts that would result from such a change. As you know, these "external" impacts include the loss of 18 direct jobs at Concord Steam, and an additional almost 70 indirect jobs, primarily in the wood industry in the mid-New Hampshire region. "External" costs would also include the loss of an historic, regulated public utility that has provided environmentally-sound wood-fired heat to our community for almost 80 years, and the resulting economic impact on the downtown businesses.

We are interested in discussing the terms of a long-term steam supply contract with the State that would include price stability provisions for the entire term, which could further distinguish our improved steam proposal from a natural gas scenario.



We would like to discuss this analysis further with you prior to the finalization of the review of the RFP if possible. We are in the process of preparing our comprehensive financing proposal materials, including our application to the BFA and the NHPUC, and it is very important that we are able to engage with you on this analysis and to get some insights into the kind of longer-term arrangements for both the steam supply and lease that the State may desire.

Thank you.

Sincerely,

A handwritten signature in black ink, which appears to read "Peter Bloomfield".

Peter Bloomfield
President

cc: M. Connor

COMMENTS ON DEPARTMENT COST COMPARISON -- "INTERNAL" PROJECT COSTS ONLY

	Department (Current Price)	CS Proposal	Explanation	Correction for system improvements	Explanation
Assumptions					
Total CS Steam Sales (mlbs)	137,000	130,000	CS adjusted steam sales 30 year degree day average	124,424	10% reduction in State building steam use due to projected energy efficiency
State Consumption (mlbs) 7/1/13 to 6/30/14	61,152	55,765	Steam sales to state adjusted for 30 year degree day average	50,189	
State % of Total	44.6%	42.9%		40.3%	
Natural Gas Boiler Efficiency %	90.0%	90.0%		90.0%	
State Natural Gas Consumption Equiv (therms)	792,938	723,086		650,778	
Cost (\$) / Steam Unit (mlbs)					
Energy	25.10	5.72		5.72	
Base	21.50	24.00		24.00	
Total	46.60	29.72		29.72	
Cost (\$) / Natural Gas Unit (therm)					
Supply	0.67	0.67		0.67	
Delivery	0.30	0.30		0.30	
Total	0.97	0.97		0.97	
Additional Operating Costs on Natural Gas	52,500	52,500		52,500	
Lost Revenue Items					
Annual PUC Fee	16,000	16,000		16,000	
Utility Property Tax	37,000	37,000		37,000	
BET	9,000	9,000		9,000	
Lease of Steam Plant	101,000	101,000		101,000	
Air Emission Fee	75,000	75,000		75,000	
Total Income Items	238,000	238,000		238,000	
State Portion of Income Items	106,235	102,093		96,002	
Total State Lost Revenue	131,765	135,907		141,998	
Comparison Analysis					
Steam					
Units	61,152	55,765		50,189	
Price / Unit	46.60	29.72		29.72	
Steam Cost / Year	2,849,683	1,657,336		1,491,602	
Natural Gas					
Units	792,938	723,086		650,778	
Price / Unit	0.97	0.97		0.97	
NG Cost / Year	769,149	701,394		631,254	
Additional Operating Costs	52,500	52,500		52,500	
State Lost Revenue	131,765	135,907		141,998	
Total Additional Cost	184,265	188,407		194,498	
Total Annual NG Cost	953,415	889,801		825,753	
Annual Savings from Conversion	1,896,269	767,535		665,850	
Payback Calculation (RSA 21-J:19-b, I)					
Assumed Project and Debt Service Cost					
Capital cost to Install 30 Boiler Systems	8,500,000	8,500,000		8,500,000	
Interest Rate	3.0%	3.0%		3.0%	
Term	5	14		17	
Annual Payment	1,856,014	752,474		645,596	
Interest Payment	780,069	2,034,634		2,475,140	
Total Project and Debt Service Cost	9,280,069	10,534,634		10,975,140	
Annual Savings from Conversion w.o. debt service	1,896,269	767,535		665,850	Does not account for shared savings with ESCO
Total Annual Savings with debt service	40,255	15,061		20,253	
Estimated Years to Recover Total Project Cost	4.9	13.7		16.5	