

**STATE OF NEW HAMPSHIRE  
PUBLIC UTILITIES COMMISSION**

**DG 10-242**

**CONCORD STEAM CORPORATION**

**2010-2011 Cost of Energy Adjustment**

**Order Approving Cost of Energy Rate**

**ORDER NO. 25,163**

**October 29, 2010**

**APPEARANCES:** Sarah B. Knowlton, Esq., of McLane, Graf, Raulerson and Middleton, P.A., for Concord Steam Corporation; and Alexander F. Speidel, Esq., for the Staff of the Public Utilities Commission.

**I. PROCEDURAL HISTORY**

On September 10, 2010, Concord Steam Corporation (Concord Steam or Company), a public utility supplying steam service primarily to commercial and institutional customers in Concord, filed its annual cost of energy (COE) rate adjustment for the period November 1, 2010 through October 31, 2011. Included in the filing was the pre-filed testimony of Peter G. Bloomfield, president of the Company. The Commission issued an order of notice on September 16, 2010, scheduling a hearing on October 14, 2010. On September 28, 2010, Concord Steam filed supplemental testimony requesting Commission approval to fund system improvements with savings realized through the Biomass Crop Assistance Program (BCAP). There were no intervenors, and the hearing was held on October 14, 2010 as scheduled.

## II. POSITIONS OF THE PARTIES AND STAFF

### A. Concord Steam

Concord Steam, through Mr. Bloomfield, addressed: (1) the Company's proposed COE rate and the resulting bill impacts; (2) fuel purchase strategy and reasons for the decrease in costs; (3) funding system improvements with BCAP savings; (4) sales forecast and unaccounted-for steam; (5) co-generation operations; and (6) status of the Company's new plant.

#### 1. Proposed COE Rate and Bill Impacts

The Company's filing indicates that the COE rate for the coming year will be \$16.64 per Mlb. of steam. This represents a decrease of \$1.40 per Mlb. from last year's projected weighted average rate of \$18.04 per Mlb. The rate is subject to a "collar" that permits Concord Steam to move the COE rate up or down by 20 percent without requiring further Commission action. *See, e.g., Concord Steam Corp., Order No. 23,822 (November 1, 2001).*

The estimated total bill impact for all steam customers is a decrease from last year. For small steam customers the estimated decrease is approximately 3.5 percent; for medium size steam customers the estimated decrease is approximately 3.6 percent; and, for large steam customers the estimated decrease is approximately 3.8 percent. These estimated bill impacts reflect delivery rates at the level recently approved in the Company's petition for a rate increase, Docket No. DG 09-139, *see Concord Steam Corp., Order No. 25,100 (May 6, 2010).*

#### 2. Fuel Purchase Strategy and Reasons for the Decreased Costs

Mr. Bloomfield, in his pre-filed testimony, stated that the majority, about 70 percent, of the Company's steam is generated through the use of wood chips and shredded wood as a fuel

supply. *See* Hearing Exhibit 1, Direct Testimony of Bloomfield at 5. The remaining 30 percent is generated by a mixture of natural gas and oil, including waste oil and no. 6 residual oil. The Company expects to burn more natural gas in its operations this year, and less oil, due to the lower price of natural gas. *See* Hearing Exhibit 1, Direct Testimony of Bloomfield at 5. The filing indicates that the projected rate decrease is due primarily to the decrease in diesel fuel costs, which directly impacts the delivered cost of wood used by the Company as its primary fuel source. The costs of fuel needed to harvest, process and transport the wood have fallen since last year.

Regarding its fuel supplies, the Company has entered into contracts for its wood supply that will result in an average delivered cost of wood of approximately \$26 per ton. *See* Transcript of October 14, 2010 Hearing (Tr.) at 8-9. Of this amount, approximately \$1 is for the actual cost of the wood, \$13 is for labor and chipping, and \$12 is for transport. *See* Hearing Exhibit 1, Direct Testimony of Bloomfield at 5. If all ancillary wood handling costs at the Company's wood yard are included, the anticipated cost of wood fuel for the Company for the coming year is approximately \$32 per ton. Tr. at 8-9. According to his pre-filed testimony, Mr. Bloomfield indicates that a ton of wood is approximately equal to a barrel of oil in the amount of energy it produces. He stated that, at the current price of oil futures, wood was less than half the cost of oil and, therefore, the price of wood is still attractive when compared to alternative fuels. At the time of its filing, Concord Steam estimated that the energy savings to its customers from burning wood, including the allowance for additional direct costs associated with it, is over \$600,000. *See* Hearing Exhibit 1, Direct Testimony of Bloomfield at 5.

Concord Steam stated in its filing that, at present, it pre-purchases about 25 percent of its wood fuel requirements, and about 90 percent of its fossil fuel requirements, for the upcoming heating season. *See* Hearing Exhibit 1, Direct Testimony of Bloomfield at 6. The Company's filing also indicated that it was pre-buying market wood chips for offsite storage at its wood yard for use during the heating season.

Regarding the wood yard, Mr. Bloomfield stated that there have been no significant changes to the operations of the wood yard and that the Company continues to use the yard to efficiently manage its wood resources. *See* Hearing Exhibit 1, Direct Testimony of Bloomfield at 6.

### **3. Funding System Improvements with BCAP Savings**

Mr. Bloomfield indicated, in his supplemental direct testimony and at the hearing, that a U.S. Department of Agriculture subsidy program, the Biomass Crop Assistance Program (BCAP), has had a significant impact on the Company's wood fuel costs over the past year. BCAP provided the Company, as a qualified biomass conversion facility (*i.e.*, as an end-user of wood fuel) with \$94,699 in subsidy, in the form of reduced payments to the Company's wood suppliers, from January 19, 2010 to April 30, 2010. *See* Hearing Exhibit 2, Supplemental Direct Testimony of Bloomfield at 2-3. The Company is not certain as to whether the BCAP program will be extended into this winter's heating season; however, the Company has requested approval for the application of the \$94,699 of energy cost savings related to the BCAP subsidy towards investments designed to reduce the Company's steam system losses, as discussed below. *See* Hearing Exhibit 2, Supplemental Direct Testimony of Bloomfield at 3-5, Tr. at 11-12. Concord Steam would apply these savings to its steam system improvements by not incorporating the

reduced cost of wood fuel resulting from the BCAP subsidy into its cost of steam calculation for the 2009-2010 heating season. *See* Hearing Exhibit 2, Supplemental Direct Testimony of Bloomfield at 3.

#### **4. Sales Forecast and Unaccounted-for Steam**

Mr. Bloomfield indicated that Concord Steam weather normalizes actual steam sales from the prior year using a 30-year normal degree day average. The sales forecast takes into account the addition of two new customers, the Rundlett Middle School and McLeod Florist. *See* Hearing Exhibit 1, Direct Testimony of Bloomfield at 7-8.

Regarding its unaccounted-for steam, considered as a percentage of steam produced, Concord Steam estimates that the unaccounted-for amount was approximately 30 percent in 2009-2010, which is about the same percentage as the prior year. Tr. at 18. In an effort to reduce these losses, the Company seeks to apply its \$94,699 BCAP subsidy balance towards: (1) the purchase of thermal imaging cameras, which will be used to map and analyze its entire steam distribution system (expected to require approximately \$55,000 of the BCAP funds); and (2) repair work on the most-problematic sections of steam distribution pipe, as identified by the thermal imaging study (accounting for the remainder of the application of BCAP funds). *See* Hearing Exhibit 2, Supplemental Direct Testimony of Bloomfield at 4-8; Tr. 11-14. This thermal imaging study is expected to enable Concord Steam to engage in carefully-targeted repair work, focused on line leaks and insulation problems, providing the greatest marginal benefit in reducing steam losses. Tr. 12-13. The Company expects this work to reduce its system steam losses by 5 percent within the first year, resulting in a reduction in energy costs of

nearly \$40,000 annually, with a payback of less than 2.5 years. *See* Hearing Exhibit 2, Supplemental Direct Testimony of Bloomfield at 6-8; Tr. 12-13.

### **5. Cogeneration Operations**

The Company reported in its cost-benefit analysis pertaining to its cogeneration operations that 2,572,800 kilowatt-hours of electricity were generated last year. Of that total, it used 1,076,804 kilowatt-hours for steam plant operations and sold 1,495,996 kilowatt-hours to the regional wholesale electricity market operated by ISO New England. Concord Steam received revenues of \$75,133 from the sale of its electricity and avoided costs of electric purchases from Unitil amounting to \$106,466. Concord Steam estimated that it would have had to pay \$193,123 for electricity without self-generation. According to Concord Steam, the benefit-cost analysis demonstrates that the cogeneration operation is cost effective, with a benefit-cost ratio of 1.52.

### **6. Status of the New Steam Plant Project**

Mr. Bloomfield indicated that the new steam plant project has all of its city permits in place and its state and federal permits are well under way. The Company has also arranged financing for the project. *See* Hearing Exhibit 1, Supplemental Direct Testimony of Bloomfield at 9. The Company hopes to have the new plant in service by the fall of 2012, and is currently in negotiations for sale of approximately 27 percent of the expected generated power from the project, with the remainder already sold. Tr. at 15.

#### **B. Staff**

Staff did not testify in this docket. In its closing, Staff stated that it had completed its review of the Concord Steam COE filing for the upcoming period and recommend approval of

the proposed rates. Tr. at 22. According to Staff, the Company's demand forecast is consistent with forecasts filed for previous winter periods and approved by the Commission. Tr. at 22. Staff also noted that the forecast reflects the addition of the new load from the Rundlett Middle School and McLeod Florist. Tr. at 22.

Staff noted that when the 2009-2010 COE period ends on October 31, 2010, the Company will submit a final reconciliation to the Commission's audit staff and any discrepancies found in the reconciliation would be addressed through the monthly adjustment mechanism. Tr. at 22. Furthermore, because fuel costs and revenues are reconciled after the period, any issues that might arise during the upcoming year can be addressed in next year's COE. Tr. at 22. Staff also supported the Company's request to apply its BCAP subsidy towards the proposed thermal imaging project, and other efforts at reducing system steam losses. Tr. at 22-23.

### **III. COMMISSION ANALYSIS**

Based upon our review of the record in this docket we approve the proposed COE rate of \$16.64 per Mlb. as being just, reasonable and lawful as required by RSA 378:7. We observe that Concord Steam's use of wood as fuel is expected to produce significant savings during the 2010-2011 COE period as compared with other fuel sources. We recognize that the Company has attempted to reduce its losses with some success and we expect that the Company will continue its efforts to control line losses in order to improve efficiency. To that end, we also approve the use of energy savings related to the BCAP subsidy towards the Company's system-improvement needs.

**Based upon the foregoing, it is hereby**

**ORDERED**, that Concord Steam's proposed 2010-2011 COE rate of \$16.64 per Mlb. effective November 1, 2010 on a service-rendered basis, is APPROVED; and it is

**FURTHER ORDERED**, that Concord Steam may adjust the approved COE rate of \$16.64 per Mlb. upward or downward monthly based on Concord Steam's calculation of the projected over or under-collection for the period, but the cumulative adjustments shall not exceed 20 percent of the approved COE rate; and it is

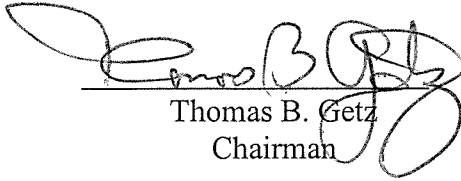
**FURTHER ORDERED**, that Concord Steam shall provide the Commission with its monthly calculation of the projected over- or under-calculation, along with the resulting revised COE rate for the subsequent month, not less than five business days prior to the first day of the subsequent month, and shall include a revised tariff if Concord Steam elects to adjust the COE rate; and it is

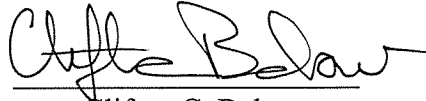
**FURTHER ORDERED**, that Concord Steam may apply its BCAP subsidy balance towards its planned improvements in its steam leak detection capabilities and to make repairs to its steam distribution system; and it is

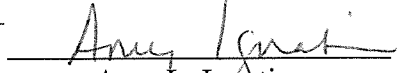
**FURTHER ORDERED**, that Concord Steam file properly annotated tariff pages in compliance with this order no later than 15 days from the issuance date of this order, as required by N.H. Code Admin. Rules Puc 1603.



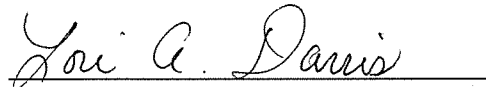
By order of the Public Utilities Commission of New Hampshire this twenty-ninth day of  
October, 2010.

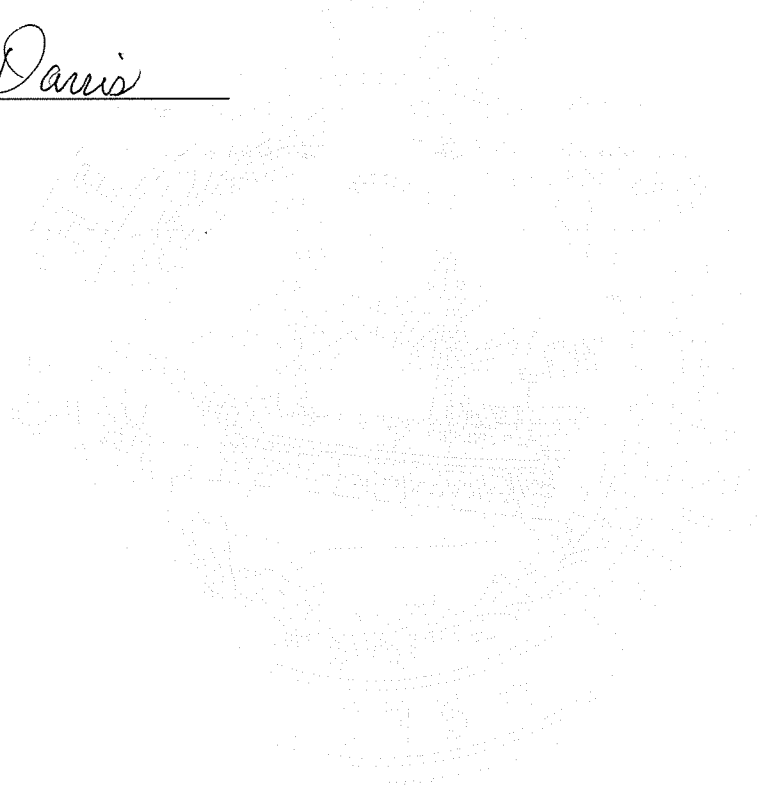
  
Thomas B. Getz  
Chairman

  
Clifton C. Below  
Commissioner

  
Amy L. Ignatius  
Commissioner

Attested by:

  
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*Concord Steam*

Docket #: 10-242

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