

Quarterly Report to the State Building Commission

Metro Nashville District Energy System

Advisory Board Meetings

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Advisory Board Representative of the Government of the State of Tennessee

The following section of the State Building Commission Policy and Procedures sets the reporting requirements:

13.01 METRO NASHVILLE DISTRICT ENERGY SYSTEM

The Commission, in accordance with the Metropolitan Government of Nashville and Davidson County requirements relating to the Metro Nashville District Energy System, will appoint for a term of two years, by name and State title, an individual to serve as the Representative of the government of the State of Tennessee on the Advisory Board for the Metro Nashville District Energy System, and the Representative shall report on the meetings of the Advisory Board to the Commission on a quarterly basis, or at any other such times the Commission requests.

This report addresses the Advisory Board meeting held on August 20, 2015 held at the Energy Generation Facility at 90 Peabody Street in Nashville. Below are key issues that were stated at this meeting:

August 20, 2015 meeting

- Mr. Harry Ragsdale, the Project Administrator with the Thermal Engineering Group (TEG), reviewed the customer cost comparison table for the previous 12 months. It was noted that, on an aggregate basis for the previous 12 months, this year versus last year, there was a marginal increase in consumption for the private customers for both steam and chilled water usage. Both the State and Metro saw a material reduction in both steam and chilled water usage which resulted in an aggregate reduction of about 7% from the previous year's consumption for steam, and 3% reduction in chilled water. The largest aggregate change in steam usage is related to the Music City Center's high occupancy leading to a reduced heating load. The aggregate unit price increased primarily as a result of the decrease in consumption.
- Mr. Ragsdale noted that the contractor's performance for this past quarter remains very consistent and in compliance with their contractual obligations.
- Kevin Jacobs, with the Thermal Energy Group (TEG), reported the performance measurement on the electrical conversion for steam. The units are in kilowatt hours of electricity per Mlb of steam. The contractor's performance is very consistently below the guaranteed threshold, which is largely due to the amount of steam sales. The greater the difference between the guaranteed value and the actual value, the greater the potential CNE has for receiving their performance bonus and the lower the cost of energy to the customers.
- Mr. Jacobs noted similar results for the plant efficiency for the fuel to steam conversion. The guarantee for the efficiency of the water to steam was established with very little room for improvement and CNE maintains a favorable value. Performance measures for electric to chilled water and water to chilled water were also reported as favorable.

- Mr. Jacobs reported CNE is doing very good with the water treatment. The quality of the steam and condensate are very consistent with no issues with iron deposits in the condensate. However, it was reported that some bacteria were discovered growing in a couple of the customer buildings' heat exchangers and it appears to have impacted the system's Delta T. Although not determined to be wide spread, CNE began introducing a biocide into the chilled water this spring. The first treatment in April most likely killed most of the localized bacteria and the Delta T has improved. A consistent dosage of this treatment will be implemented to make sure it does not return.
- Mr. Jacobs reported on this quarter's EGF walkthrough and found the facility in very good condition. The walk through of the EDS found that there continues to be issues with the water infiltration into some of the vaults.
- Mr. Jacobs reviewed actual gas spending relative to the FY 15 budget. Fuel consumption was higher than budgeted (without contingency) as a result of higher steam sales due to colder weather, however, the plant efficiency as a result of higher steam production was improved. Fuel costs were generally on budget for the FY when the price and consumption contingencies are included. Gas pricing remains low and flat.
- Mr. Jacobs discussed the FY 15 costs to date and compared them to the budgeted values. All costs were within budget. Mr. Jacobs then reviewed the approved budget for FY 16, which remains very close to last FY budget and reflects a decrease from the previous year of nearly ½ percent.
- Mr. Ragsdale and Mr. Jacobs discussed other developments being planned. They have been informed of a hotel being planned and MDHA is planning an office building across the street.
- The next Board Meeting will be held Thursday, November 19, 2015 at 10:00 am.

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