

# Metro District Energy System Advisory Board Regularly Scheduled Meeting of September 1, 2016

# Minutes of Meeting

The meeting was held at the Energy Generation Facility at 90 Peabody Street Nashville, TN 37210

<u>Facilitators</u>: Harry Ragsdale, DES Project Contract Administrator and Kevin Jacobs, Thermal Engineering Group

## **Board Members Present:**

Freddie O'Connell Jim Thiltgen Alan Robertson Tom Eddlemon (on behalf of Talia Lomax-O'dneal)

### **Board Members not Present:**

Yuri Cunza Brian Taylor Talia Lomax-O'dneal James Harbison Tom Turner Richard Fletcher Nancy Whittemore

### **Others Present:**

Tim Hestle, CNE Kevin Jacobs, TEG Bob Lackey, DES Liaison Harry Ragsdale, TEG Jamie Hunter, DES Advisory Board Secretary

The meeting was called to order by the Vice Chair and began at 10:08 A.M.

At the request of the Vice Chair, Mr. Ragsdale proceeded with the presentation to the Board.

Mr. Jacobs and Mr. Ragsdale reviewed the Customer Cost Comparison table for the fourth quarter FY16. On an aggregate basis for the previous twelve (12) months, the steam consumptions were down by about 15% and there was a slight increase in aggregate cooling consumption by about 2%; this was due to mild weather conditions this past winter. There has been a decrease in cost of steam because the cost of natural gas is \$2.00 per BTU down from last year's \$3.00 per BTU. The increase for chilled water is because the cost of electricity has increased slightly.

Mr. Jacobs and Mr. Ragsdale reviewed Electric Time of Use (TOU) On-Peak /Off-Peak Schedule. The new billing program will apply to electric bills starting FY17. The billing program was developed to review DES customer peak demand at the same time as NES/TVA charges. Customers who use more chilled water during peak demand periods, will see an increase in their cost and be billed more accurately their cost of electricity. Notices have gone out to customers with the new change in pricing. The goal is to assure all customers are charged correctly.

Mr. Jacobs and Mr. Ragsdale continued and discussed Summary TOU Cost Comparison and a Sample Customer Load. A dual analysis of On-Peak and Off-Peak periods under the NES TOU was done. In (6) six months of comparing what customers paid and would have paid there is about a 25 cent difference in the cost. Some customers would have paid more and some less. Trends show office buildings and event buildings peak cooling loads times are different. Mr. Jacobs and Mr. Ragsdale gave examples of the differences between different functional buildings. Board members discussed examples and scenarios.



Mr. Jacobs and Mr. Ragsdale reviewed the DES Contractor Performance for the current fiscal year including conversion tables for steam electric, steam plant efficiency, steam water, chilled hot water (CHW) electric, and CHW water. The contractor's performance continues to remain good in all areas.

Mr. Jacobs and Mr. Ragsdale reviewed Water Treatment. Biologicals in pipes are greatly reduced. The Contractors will continue to take samples. The device that was purchased to reduce biologicals on Plate and Frame heat exchangers appears to be working okay but will continue to be monitored for its performance in cooler weather. The Contractor's performance for water treatment is still good.

Mr. Jacobs and Mr. Ragsdale reviewed the EGF (Energy Generating Facility) walkthrough. Walkthrough of plant indicates it is very well maintained. The Energy Distribution system's Vaults and Tunnels are inspected once yearly in partial sections quarterly and those walked through look good with the exception of some small issues with the water infiltration.

Mr. Jacobs and Mr. Ragsdale continued and reviewed Natural Gas Purchasing for FY16. Steam sales are down and the gas budget is good. Mr. Jacobs stated \$70,000 worth of propane gas was pre-purchased and stored off-site. The purpose of the stored propane was in case of a gas curtailment. Propane that was purchased was sold back for \$52,000.00 so the actual cost for the "fuel assurance" was \$18,000.00.

Mr. Jacobs continued with the Actual and Projected Gas Cost Comparison History report; stating DES is paying slightly more than market but is staying in budget and anticipates prices coming down in FY17. Mr. Lackey noted the plan is to purchase gas at market value unless it is recommended by the natural gas consultants Constellation and the city to do otherwise based on market indicators of risk.

Mr. Jacobs and Mr. Ragsdale continued with the FY16 Operating Cost to Date report; all of Metro Funding (MFA) has been deposited and we are on track with the budget. The MFA has seen a steady decrease of not less than 3% over the last several years. The FY17 budget is approximately 5.7% lower that the FY16 budget.

Mr. Jacobs continued with the Capital Expenditure Update report; the R&I fund has a remaining balance of \$5,068, the 49109-2010 Bond Fund has \$125,385 remaining and bond fund 49107 has \$1,748,565 remaining. The bond fund 49116 for the CHP project is on hold and the cost to date has been for engineering cost of study done by IC Thomasson. Funds for bond 49116 are not available at this time.

Mr. Jacobs reviewed the Active Capital Projects Review report stating DES 104 is the TOU project and is completed. DES 111 Combined Heat Power is on hold. DES 119 Chilled Water Systems Delta T is the hydro-flow device that was purchased to reduce biologicals and it is being monitoring. Mr. Jacobs continued with DES 121, 122, 127, and 128 are Manholes repairs in design or construction phases. Mr. Jacobs continued with DES 123 has been closed. Mr. Jacobs and Mr. Ragsdale continued with DES 129 and 130 are Manholes in construction phases. Mr. Jacobs and Mr. Ragsdale continued with DES 131 is for Wildhorse Service Connections Modification is in construction phase. Mr. Jacobs continued with DES 126 is Exploratory Excavation for 3<sup>rd</sup> Avenue chilled water leak and no leak was found. Whereabouts of the leak is still in progress. Exploratory excavations will continue.

Mr. Ragsdale reported research done on options of anticipated growth south of Broadway and ways to determine District Energy expansion considered at last Board Meeting. Mr. Ragsdale reviewed (3) three options; Status quo, expansion of existing plant, or selling of plant. Mr. Ragsdale explained the significate impacts of concern; financial impact to Metro city, system impact and customer impact. Mr. Ragsdale continued with explanation of benefits and risk for each of the (3) three options as they pertained to each of the (3) three impacts. The Board discussed the options and impacts and the discussion was directed to marketing and growth opportunities as they pertained to the impacts. The Chair asked if the Board had any persuasion on the options and impacts. With more discussion on the options the Chair asked the Board to



gather additional information on whether the Board should vigorously pursue the options and evaluate at next Board Meeting.

The Vice Chair deferred approval of minutes from May 19<sup>th</sup>, 2016 Board Meeting to next meeting.

Without further discussion, and upon a motion, the meeting was adjourned at 11:21 A.M.

The next Board Meeting will be held Thursday, November 17, 2016 at 10:00 A.M.

Prepared by:   Jamie Hunter, Board Recording Secretary	Approved: Approved: Chair, DES Advisory Board
Date: 5-18-17	Date: 18 May 2017
Approved: Bob Lack	
Bob Lackey, DES Liaison	
Date:	