



**Metro District Energy System Advisory Board  
Regularly Scheduled Meeting of  
February 16, 2017**

**Minutes of Meeting**

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

**Facilitators:** Harry Ragsdale, DES Project Contract Administrator and Kevin Jacobs, Thermal Engineering Group

**Board Members Present:**

Freddie O'Connell  
Brian Taylor  
Alan Robertson  
Yuri Cunza  
Jim Thiltgen (*on behalf of James E Harbison*)  
Tom Eddlemon (*on behalf of Talia Lomax-O'dneal*)  
Alexandra Ewing (*on behalf of Nancy Whittemore*)

**Others Present:**

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

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The meeting was called to order by the Board Chair and began at 10:00 A.M

There being no additions, comments or edits to the minutes, the Board Chair made a motion to approve, it was seconded. The Board voted and approved the May 19, 2016, September 1, 2016 and November 17, 2016 minutes.

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

Mr. Jacobs and Mr. Ragsdale reviewed the Customer Cost Comparison table for the previous twelve month period. On an aggregate basis for the previous twelve (12) months, the steam consumptions increased by about 5% and there was an increase in aggregate cooling consumption by about 6%; this was due to mild weather conditions this past winter and the Music City Center (MCC) having slightly more steam consumption in summer months.

Mr. Jacobs and Mr. Ragsdale reviewed the past EGF water usage, cost and make-up. Mr. Jacobs explained the graphical information on water usages demonstrated the average monthly flow rates in gallons per minutes (GPM). There is a higher cooling load during the summer months; therefore more water is evaporated. The plant receives about 80% of returned condensate and that is a good average in comparison to other District Energy Systems. Mr. Jacobs noted Constellation's management of the system helps to keep cost down. Customers make a small contribution to maintain the condensate lines but Metro contributes the majority of the cost.

Mr. Jacobs and Mr. Ragsdale continued discussing make-up water's average cost. Make-up water was about \$12,000 per month in 2016 compared to few hundreds of dollars in 2006-2007. Leaks in the



distribution system occur due to aging and moving/shifting pipes. DES has a contractor attempting to locate and repair leaks as they are discovered.

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

Mr. Jacobs and Mr. Ragsdale reviewed Water Treatment practices of the System Operator (SO). Biologicals in pipes have been greatly reduced as a result of recent chemical treatment. The SO will continue to take samples of the chilled water to track biological presence. Ms. Ewing asked what the process was should a customer have an issue with their water. Mr. Ragsdale stated DES does respond to all issues and once contacted, DES will investigate and work with customers to solve any problems. The SO's performance for water treatment is still very good.

Mr. Jacobs and Mr. Ragsdale reviewed the EGF (Energy Generating Facility) walkthrough. The quarterly physical walkthrough of plant indicates it is very well maintained. The Energy Distribution System's Vaults and Tunnels are inspected once yearly by reviewing partial sections quarterly and those walked through in the most recent quarter look relatively good. There is room for improvement by reducing water infiltration and addressing the corrosion of metal components.

Mr. Jacobs and Mr. Ragsdale continued with a discussion of the Natural Gas Purchasing for FY17. Mr. Jacobs reviewed Gas Spending and Budget Comparison to the end of January 2017. As a percent of quarterly budget, the differences between 1<sup>st</sup> quarter gas budget and 2<sup>nd</sup> quarter budget were significant. Whereas the 1st quarter was over budget, the period October through January was actually under budget as a result of the steam sendout, the plant efficiency and the cost of fuel were below budget. No propane was purchased this year and there were no curtailments due to a milder winter.

Mr. Jacobs and Mr. Ragsdale continued with a discussion of the Actual and Projected Gas Cost Comparison. Mr. Jacobs reviewed FY17 gas price projections and noted that the current pricing is consistent with the budget. Mr. Ragsdale explained that five year averages of usage for all customers are taken as a basis for predicting annual consumption and then a contingency is added for weather and price. The price contingencies are in case there are fluctuations in the market price while the weather contingency is in case of colder than average winters. Mr. Jacobs noted that there is an anticipated decrease in gas prices this spring and an increase anticipated in FY18.

Mr. Jacobs continued with the FY17 Cost to Date report. All expenditures appear to be consistent with the expectations and within the budget. The water and the gas expenditures are at about 50% of the budget through the 2<sup>nd</sup> quarter.

Mr. Jacobs continued with the Capital Expenditure Update report; the R&I fund has a remaining balance of \$3,548, and about \$23,000 a month is deposited in the account reflecting the Initial System Customer contributions. The 49109-2010 Bond Fund has \$121,038 remaining and Bond Fund 49107 has \$1,607,266 remaining. The Bond Fund 49116 for the DES CHP project is on hold. There is \$1,731,852 available for expenditure on distribution system related projects.

Mr. Jacobs reviewed the Active Capital Projects Review report stating DES 061 - MH & Tunnel Steel Corrosion Repair and Prevention project is ongoing. DES 111 – Cogeneration - Combined Heat Power is on hold. DES 119 - Chilled Water Systems Delta T is the hydro-flow device that was purchased to reduce biologicals has failed to perform and a refund request is in progress for the device. Mr. Jacobs continued by discussing projects DES 121, 122, 129, and 130 for Manhole repairs in various design or construction phases. Mr. Jacobs discussed DES 124 - CJC Redevelopment noting that the demolition phase has been completed and is in design phase by others. Mr. Jacobs continued with DES 134 - Union Street Service Reconnection was bid and awarded. Construction for DES 134 is expected to start in the 3<sup>rd</sup> quarter of FY17.



Mr. Jacobs continued with DES 135 - CHW leak which is being investigated and is in construction phase. Mr. Jacobs discussed DES 137 – Addition of new Chilled Water isolation valves at Cordell Hull was bid and awarded. Construction for DES 137 - Expected to start in the 3<sup>rd</sup> quarter of FY17.

Mr. Jacobs continued with Capital Projects in Close-out/Closed. DES 128 – Manhole 12 Steam Anchor Repair is closed.

Other Board Member Items

Mr. Lackey discussed the status of the RFQ for Third Party Review of DES Options. Based on a discussion with Metro Purchasing, the RFQ was expected to be issued within a week.

Mr. Lackey proceeded with discussion of Executive Order 015 and expressed appreciation to the Board for their review and comment. Mr. Lackey noted the majority of review comments were related to Board membership structure and term which were primarily due to meeting quorum issues. Mr. Lackey reviewed the recommended changes with the Board and provided background concerning the history and establishment of the Advisory Board. Board members discussed the recommended changes and suggested a change in the proposed structure by including an additional private customer member in lieu of an additional general public member. The Board also suggested providing for staggered membership terms. The Board Chair suggested including a provision to the membership structure that the Council Member representative be appointed from the council district within the footprint of the DES System or has a citywide perspective (an at-large Council Member). All suggested changes were incorporated into the document.

Mr. Lackey proceeded to discuss the recent issuance of the RFP for Contract Administrator. The current contract with the Thermal Engineering Group expires April 2017. The RFP for a new contract is due in Purchasing on March 21<sup>st</sup> 2017.

Without further discussion, and upon a motion, the meeting was adjourned at 11:28 A.M.

The next Board Meeting will be held Thursday, May 18, 2017 at 10:00 A.M.

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Prepared by: <u>Jamie Hunter</u>	Approved: <u>Freddie O'Connell</u>
<b>Jamie Hunter, Board Recording Secretary</b>	<b>Freddie O'Connell, Chair, DES Advisory Board</b>
Date: <u>5-18-17</u>	Date: <u>18 May 2017</u>
Approved: <u>Bob Lackey</u>	
<b>Bob Lackey, DES Liaison</b>	
Date: <u>5-18-17</u>	