



**Metro District Energy System Advisory Board
Regularly Scheduled Meeting of**

August 15, 2019

Minutes of Meeting

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

Facilitators: Dan Coyle, DES Project Contract Administrator and Kevin Jacobs, Thermal Engineering Group (TEG)

Board Members Present:

Freddie O'Connell
Ann McGauran
Laurel Creech (*on behalf of Nancy Whittemore*)
Tom Eddlemon (*on behalf of Talia Lomax-O'dneal*)
James E. Harbison
Brian Taylor

Others Present:

Dan Coyle, TEG
Kevin Jacobs, TEG
Tim Hestle, Constellation
Adrienne Fancher, MWS
Bob Lackey, Metro Finance
Starla Friedmann, Metro Finance
Angela Doss, Metro Finance

The meeting was called to order by the Chair and began at 10:03 A.M.

With no additions, comments or edits to the previous meeting's minutes, a motion was made to approve the minutes and seconded. The Board voted and approved the minutes for the May 16, 2019.

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

Mr. Jacobs reviewed the Customer Sales Cost Comparison table for the previous twelve-month period. On an aggregate basis for the previous twelve months, the steam consumption and total cost was up over the previous twelve months. Due to a high steam consumption for all the customers, the total costs have increased for all customers. The chilled water sales for the State buildings have decreased, but the chilled water sales for the other customers have increased. The total costs for chilled water have increased for all the customer groups except the State.

Mr. Jacobs reviewed the DES Contractor Performance for FY19, which included the efficiency and performance tables for steam electric consumption, steam gas consumption, steam water consumption, CHW electric consumption, and CHW water consumption. Mr. Jacobs explained the contractor's (CNE) performance monitoring criteria as identified on the Power Point presentation with the use of the green, yellow and red dots noted on the slides. The green dots indicate excellent performance, the yellow dots indicate satisfactory performance where some improvement may be necessary, and the red dots indicate poor performance. CNE's performance continues to remain excellent in all areas except CHW electric conversion. The chilled water electric consumption per unit of sales for the previous twelve-months is higher



than both the three and five-year averages for each month. Mr. Jacobs explained that this decrease in performance may be related to the cooling towers and that TEG and CNE were investigating the causes of the decrease in performance.

Mr. Jacobs reviewed the water treatment slides. The quality of the condensate return and the steam have been good. However, CNE has had to dump the condensate once a quarter due to hardness entering the condensate from customer buildings. In general, the condensate return is approximately 70% to 80% of the steam sendout. The condensing water and chilled water remain good, and the presence of biologicals in the chilled water remain undetectable.

Mr. Jacobs reviewed the EGF (Energy Generating Facility) Walkthrough and all areas are good. The quarterly physical walkthrough of the plant indicates it is very well maintained.

Mr. Coyle reviewed the EDS Walkthrough. There are no significant changes from the previous quarter, but problems remain with water infiltration and corrosion of structural metal components. Several ongoing projects are addressing these issues.

Mr. Jacobs continued with Natural Gas Purchasing review. The steam sendout and fuel usages were higher than what was budgeted. Propane was purchased for the year and placed in storage, but the stored amount was not delivered and sold back to the supplier. The storage of the propane in this manner is intended to ensure a ready supply should natural gas be curtailed during the year. There were no natural gas curtailments in FY19. The storage cost for the propane is charged back to the customers as a cost of fuel. Due to the plant's high fuel efficiency and low natural gas cost, the total cost of fuel was only slightly higher than the pre-contingency budget for the year. When the budgeted contingencies are included, the fuel costs were well below budget.

Mr. Coyle and Mr. Jacobs continued with the Actual and Projected Gas Cost Comparison History. Mr. Jacobs explained that gas prices have been decreasing. Mr. Jacobs and Mr. Coyle explained the graph in the presentation included propane and transportation costs. Mr. Jacobs explained that Metro's natural gas consultant, FC Stone, has indicated that the market shows a relatively low unit cost for natural gas for the next twelve months. The red line on the chart notes market unit prices; the blue line notes actual unit costs in previous months and the expected unit costs in future months. The green line notes the budgeted unit costs without contingencies.

Mr. Jacobs continued with FY19 Costs to Date report. All expenditures appear to be consistent with expectations and within budget. The Fixed Operating Costs (FOC) paid to Constellation was approximately 96.89% of FY19 budget. The non-energy expenditure was approximately 99.85% of the budget. The water expenditure was approximately 92.41% of the budget. The natural gas base expenditure, including the FEA and gas consultant, was 100.00% of the budget since some (29.62%) of the natural gas contingency cost was used. The electric expenditure was approximately 90.31% of the budget. Total expenses were 93.60% of the budget and total revenues were approximately 93.08% of the budget and all debt was paid.

Mr. Jacobs continued with FY20 Budget report. The FOC paid to Constellation, water/sewer, debt service and non-energy costs are all budgeted lower than in FY19. The budget for all other energy costs are higher than in FY19, and a higher natural gas contingency is planned for FY20. Overall, the anticipated Metro Funding is approximately 19% lower than in FY19.

Mr. Jacobs continued with the Marketing update. An executed CSA with the Hyatt Centric (3rd Avenue and Molloy St) is anticipated within the First Quarter of FY20. The agreement will not include steam. Service is expected to occur during construction Spring 2020, and the hotel is anticipated to open in April 2021.

Service to Lot K is in negotiations and will include a new service east of EGF under the parking lot. DES and the potential customer are in the early stages of communication due to the timing of the building's construction.



New Hotels on Peabody St are in the preliminary design phases and will include retail space. DES is in early discussions with this potential customer. The Hotels will be located on Hermitage Street and 2nd Avenue fronting on Korean Veterans Boulevard. New service to the hotels would be provided via Peabody St. The design team and developer for the site appears to favor district energy service.

Negotiations are in the early stages of communication with the Four Seasons Hotel. The site is located on 1st Avenue South between Demonbreun and Shelby Street.

Mr. Lackey continued with the status for the RFP and sale of the DES. Pursuant to Metro's award to Engie, Engie is continuing with their due diligence efforts. Constellation was not successful with their protest of the award, so they have filed an appeal which will be heard by the Procurement Appeals Board on September 26, 2019. Engie has completed the task of obtaining customer consents for the sale of DES. Engie is also developing a plan to address the TN Utilities Commission regulation and is moving forward. The Public Utility Commission will not move forward until after the appeal has been completed. Engie and Metro are negotiating the purchase contract.

Mr. Jacobs continued with the Capital Expenditure Update report (as of 06/30/19). Mr. Jacobs gave \$63,714 as the amount remaining of available funds to date for FY19. The 49109 (2010 Bond Fund) remaining balance has \$9,217. Bond fund 49107 has \$2,221 remaining. Bond Fund 49116 has \$1,122,109 remaining for FY19 projects.

Mr. Jacobs reviewed the Active Capital Projects Review report.

DES 133.1 – Broadway Tunnel Damage Recovery

DES 135 – CHW Leak at 5th & Union; leak discovered at 5th & Union; repairs made; positive impact at JK Polk.

DES 151 – Manhole 23 repairs – in close out.

DES 152 – Manhole A and M Coating Repairs – postponed until FY20; anticipate bidding in 1st quarter FY20.

DES 153 – Manhole L Repairs – finalizing design; to be bid first quarter FY20.

DES 154 – Manhole K Repairs – postponed to FY20; will review priority relative to other projects.

DES 157 – Manhole 9 Repairs – bid in first quarter FY20; work anticipated to be completed during same quarter.

DES 158 – Manhole 18A Repairs and MH 18 Anchor Repair – construction completed; Manhole 18A closed 4th quarter FY19; Manhole 18 requires additional work to take place during the summer under new project number; in design.

DES 159 – Manhole B2 Repairs – bid in first quarter FY20; work anticipated to be completed in same quarter.

DES 160 – 5th + Broadway Service Connection – connections for service completed; waiting to install instruments.

DES 161 – Manhole S6 Insulation – postponed until FY20; anticipate bidding during first quarter FY20.

DES 162 – Hyatt Centric Service – CSA in progress; line extension in bid phase.

DES 163 – MDHA Parcel K Service – negotiations with new customer in early stages.

DES 164 – Broadway Tunnel Repairs – closed

DES 165 – AA Birch Tunnel Repairs – closed

DES 166 – Miscellaneous Tunnel Repairs – closed

DES 168 - First and KVB Hotel – DES service to 1st and KVB Hotels – negotiations with new customer in early stages.

DES 169 – Manhole 20 Repairs – pipe supports corroded, require replacement; to be bid first quarter FY20.

Capital Projects in Close-out/Closed

DES 151 – Manholes 23 Repairs

DES 164 – Broadway Tunnel Repairs



DES 165 – AA Birch Tunnel Repairs
DES 166 – Miscellaneous Tunnel Repairs

Without further discussion, and upon a motion, the meeting was adjourned at 11:15 A.M.

The next Board Meeting will be held Thursday, November 21, 2019 at 10:00 A.M.

Prepared by: _____

Starla Friedmann, Board Recording Secretary

Date: _____

Approved: _____

Freddie O’Connell, Chair, DES Advisory Board

Date: _____

Approved: _____

Bob Lackey, DES Liaison

Date: _____