



Metro Nashville District Energy System Advisory Board

Regularly Scheduled Meeting of

February 16, 2023

Minutes of Meeting

*The meeting was held in person at the Sonny West Conference Center
and via WebEx teleconference.*

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

Board Members Present:

Freddie O'Connell
Brian Taylor
Michael Adcock
Laurel Creech (*on behalf of Velvet Hunter*)
Heidi Hoeffner (*on behalf of Kelly Flannery*)
Ann McGauran
Bill McKnight
Yuri Cunza

Others Present:

Dan Coyle, TEG
Jon Belcher, TEG
Michael Winters, Constellation
Mats Bergquist, Constellation
Bill Purcell, Frost Brown Todd LLC
Adrienne Fancher, Metro Water Services
Charda Johnson, Metro ITS (Webex host)

Brian McKnight, Board Vice-Chair, called the meeting to order at 10:05 a.m., and confirmed that quorum was in attendance. Ann McGauran moved to accept the minutes, and Yuri Cunza seconded the motion. The minutes were approved unanimously by verbal acceptance.

Dan Coyle reviewed the Customer Sales. Mr. Coyle stated that there are 2 customers were in arrears. In reviewing the Customer Cost Comparison, Mr. Coyle reported that steam usage is up for all customer categories and a slight increase in chilled water usage, also noting that these figures reflect a hot summer and cold December. Chilled water sales were above average in the summer and continued high through a warm autumn. Steam sales were at the historic average until a near-record high in December.

In reviewing the operator's performance, Mr. Coyle noted that Constellation Energy Solutions (CES) met three of the performance metric criteria for the 2nd Quarter of FY23. For the last 12 months, CES has met the Electric to Steam Conversion guarantee. The steam plant efficiency [fuel to sendout] guarantee was missed most months, but it was met for October. The steam water conversion performance was close but slightly above the guarantee which may have been due to a metering issue. The chilled water electric conversion guarantee was met for the previous 12 months. The chilled water water conversion performance exceeded the guarantee during the summer; however, the performance was below the guarantee during the autumn months.



Regarding water treatment, there have been no adverse issues. The sidestream filter installation [to improve solids removal in the chilled water return and improve water quality for the customers] is scheduled for 3rd Quarter FY2023.

Mr. Coyle stated that based on the quarterly EGF Walkthrough, Constellation continues the improved maintenance of the plant, grounds, and equipment.

Jon Belcher discussed the EDS Walkthrough. Mr. Belcher noted the overall system condition is the same. There are ongoing long-term items to address in the tunnels. Housekeeping is in good order. Some of the upcoming insulation projects will move the system forward. Mr. Belcher complimented CES for its efforts in the distribution system. Mr. Belcher noted that water infiltration in the tunnels and vaults is due to the nature of tunnels and not due to lack of effort by CES.

Mr. Coyle reviewed the natural gas price market has been volatile in recent months. Gas is used for steam production. The fuel use efficiency is below budget. Gas costs exceed budget due to gas market forces rather than operational efficiency. The FY2023 budget was created prior to the erratic market activity, but the hedged purchases are effectively protecting DES from market prices. We expect prices to be more "normal" in FY2024. Current market prices are approximately twice what DES is paying. Referring to Figure 5, Ms. McGauran inquired how the hedging is represented on the graph. Mr. Coyle responded that the "blue line" representing Actual and Projected Unit Costs reflects actual purchases through the hedging policy. Adrienne Fancher added that whereas gas purchases in the past may have been in consistent, "level" quantities and prices, the current purchasing pattern reflects DES purchases as market prices rose and fell.

Mr. Coyle reviewed the FY2023 Costs to Date, noting that water/sewer costs could exceed the budget based on its current trend. Water usage, as expected, skewed higher in the warmer months. The Operating Reserve Fund (ORF) is 25% of the operating costs that must be reserved in compliance with bond requirements. The deposit for this quarter reflects an increase in operating costs. Comparing the budget for this year with last year shows an increase in anticipated Administrative Costs related to the budgeting process that may not materialize by the end of the fiscal year. Chemical costs are up approximately 10%, and the increase in fuel prices was anticipated in the current budget. Ms. McGauran asked for more explanation of the anticipated Administrative Costs. Ms. Fancher responded that the budget for Administrative Costs was increased in anticipation of reorganization within Metro Water Services and the transfer of responsibilities from the Finance Department to MWS. As the year has progressed, it appears that some of those projected increased costs have not been realized.

Regarding Marketing, Mr. Coyle noted a recent increase in interest from developers, particularly in the Rolling Mill Hill area south and west of the plant. Customer interest for heating as hot water, not steam, has increased. An article about Nashville appeared in the *District Energy* magazine – the trade journal of the International District Energy Association (IDEA). A link to the article will be sent to the Advisory Board members. Mr. Coyle highlighted several development projects that have expressed interest in joining DES.

Mr. Coyle highlighted the Capital Expenditures to date through FY23. Much of the spending reflects the EDS projects Mr. Belcher described. Ms. McGauran asked if the highlighted spending reflects service to East Bank developments and for clarification of how that area could be served. Mr. Coyle responded that the Capital Expenditures do not include the East Bank (other than the current chilled water service to Nissan Stadium) and it is anticipated that new, satellite facilities will be constructed to serve the East Bank.

Regarding Capital Projects, Mr. Coyle highlighted the sidestream filter project and the new EGF building signs. For Project DES-201, Ms. Fancher noted that discussions are on hold with Oracle and the Titans to serve those East Bank facilities with district heating and cooling, pending decisions by the management of those organizations regarding the advantages and disadvantages of using district energy. Ms. Fancher added that DES continues to look for options to serve the East Bank and to improve the environmental sustainability of DES operations. Mr. Coyle added that any presence of DES on the East Bank will be more efficient, more modern facilities. Mr. Coyle provided an update of the distribution system capital projects related to steel corrosion repair and prevention, primarily in manholes. He added that certain projects will be scheduled in the spring when the steam system can be taken offline.



The System Operator, Constellation Energy Solutions (CES), presented an update for the Advisory Board. Mike Winters, the Plant General Manager, commended the staff for years of safe operation without injuries or environmental incidents. Mr. Winters highlighted the performance of the system with respect to the guarantees. Mr. Winters described the improvement plan for meeting the operations performance guarantees developed by CES with input from an IC Thomasson efficiency study, featuring projects that may require process changes and/or capital investment. CES will continue to work with Metro to evaluate and implement the projects. Mr. McKnight asked if CES anticipated any pushback for implementing the projects. Mr. Winters did not anticipate resistance, but further discussion of the projects' value is required.

Mr. Coyle noted that the contract for Thermal Engineering Group (TEG) had not been resolved. Mr. McKnight asked for a status update. Ms. Fancher responded that while the contract was under review by Metro Legal, TEG continued to work under an agreement that had been extended on an emergency basis. Freddie O'Connell asked for confirmation that TEG's emergency agreement is without expiration such that there will be no gap in service for the customers. Ms. Fancher confirmed, and Mr. Coyle noted that the CES operating contract will not expire for two years.

Mr. O'Connell noted that his term on the Metro Council will end between the August and November members, and that Metro will determine representation on the Advisory Board. With no further questions from other Board members, Mr. McKnight adjourned the meeting at 10:58 a.m.

The next regular Board Meeting will be held Thursday, May 18, 2023, at 10:00 a.m.

These minutes were approved on May 18, 2023.