Metro Nashville District Energy System Advisory Board

Regularly Scheduled Meeting of

November 20, 2025

Minutes of Meeting

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

<u>Board Members Present:</u>

Olivia Hill, At-Large Metro Council Member
Brian Taylor, Public Representative
Heidi Hoeffner *(on behalf of Jenneen Reed, Metro Finance Director)*
Gerald Smith, Metro General Services Director
Ann McGauran, State of Tennessee Representative
Philip Sackett, ISC Private Customer Representative
Blake Ramey, New Private Customer Representative

<u>Others Present:</u>

Jon Belcher, TEG
Randy Pomeroy, PMC
Mike Winters, District Energy Asset Operations (DEAO) [Constellation]
John Schaffer, DEAO [Constellation]
Bill Purcell, Frost Brown Todd LLC
Philip McGowan, FINN Partners
Freddie Adom, Metro General Services
Brian Cantrell, Metro General Services
Adrienne Fancher, Metro Water Services
Charda Johnson, Metro ITS (Webex host)

Advisory Board Chair Olivia Hill called the meeting to order at 10:02 a.m. Ms. Hill invited the Board members to introduce themselves, including the new Board members, Blake Ramey and Philip Sackett. The minutes of the previous meeting were approved unanimously by verbal acceptance.

Adrienne Fancher, Metro DES Liaison, welcomed the new Board members and noted that she sent recent reports from operations investigations to the Advisory Board members for their reference. The investigations were part of ongoing efforts to improve System operations and maintenance in preparation for expansion to East Bank and other parts of the Downtown Core. Brian Taylor inquired about the process and timeline for TPAC to move to East Bank and connect again to DES. Ms. Fancher was not informed of the timeline, but DES has assured TPAC that DES could comply with TPAC's construction schedule.

Kevin Jacobs also welcomed the new Board members and reviewed the Customer Sales. Mr. Jacobs stated that there was 1 customer in arrears for more than 30 days. In reviewing the Customer Cost Comparison, increased chilled water costs were observed due to increased usage as well as costs of water and electricity. Gas costs for steam have remained relatively constant.

For Historic Chilled Water Sales comparing years 2022 through 2025, Summer sales were comparable to the average, but August was slightly lower than average. For Historic Steam Sales, steam usage is higher than average, possibly due to increased domestic hot water use in hotels with higher-than-usual occupancy (as opposed to office buildings).

Regarding Marketing, Mr. Jacobs noted that the System is approaching capacity as evaluated from Customer data and that potential Customer demand exceeds currently available capacity. Mr. Jacobs outlined decoupling options for increasing System capacity and highlighted new contracts for existing Customer properties that have changed ownership and/or function that will decouple during renovations. Mr. Jacobs also noted that while two of the Rolling Mill Hill prospective DES-Customer projects are on hold, there are two new projects with DES potential that are in preliminary design. Mr. Jacobs described other building conversions and new construction in the Downtown Core that are considering district energy. Thermal Engineering Group has updated the System hydraulic model based on building changes to plan for growth. He noted that among potential Customers is the relocated TPAC.

Mr. Jacobs shared that he had recently presented to the Tennessee Engineers Conference on the topic of using steam for domestic water heating. He also noted that the Nashville Symphony and Metro Nashville DES were referenced in an *IDEA Magazine* article about using district energy for museums and performing arts facilities.

In reviewing the System Operator's performance, Mr. Jacobs provided definitions and a brief history of the development of the performance metrics. Mr. Jacobs noted that the Steam-Electric performance metric was met this quarter after resolving the meter issue of last quarter. The Steam-Plant Efficiency and Steam-Water metrics were met during the quarter. The Chilled Water-Electric metric reflects the decreasing efficiency of an aging chiller plant, but the failure to meet the metric in July was an anomaly. Ann McGauran asked who sets the performance guarantees and how often they are evaluated. Mr. Jacobs responded that the guarantees were set at the beginning of the operation in a vacuum of performance data, and guarantees are modified as performance data was accrued and as System conditions and contracts change. The current metrics reflect 20 years of data and realistic performance standards. Gerald Smith asked who represented Metro in the negotiation of contract terms and guarantees. Mr. Jacobs responded that DEAO Contract Amendment 2 was negotiated by Metro Finance, and Amendment 3 was negotiated by Metro Water Services. The Chilled Water-Water metric was slightly exceeded this quarter.

Regarding water treatment, Mr. Jacobs explained the nature of the chemical supplier's role in operations and offered a brief history of issues. There have not been any biological issues in the Chilled Water system in quite a while. Although intended to remove iron and copper, the side stream filter has also substantially reduced the turbidity of the water. Ms. Hill asked why the condensate values appeared low and how Customers impacted these results. Mr. Jacobs offered meter error as a factor in the discrepancies between Customer site and plant meters; however, currently there are no known leaks in the condensate system. Mr. Jacobs clarified that the cost of additional water to make up for insufficient condensate return is distributed among all Customers and to enforce return requirements at each Customer would require individual condensate metering that is not part of the Customer Service Agreement.

Regarding year-to-date natural gas purchases, Mr. Jacobs observed that although steam sendout was above budget, the gas spending and plant efficiency were below budget. In reviewing the Actual to Projected fuel costs, we see the impact of the gas purchase hedging strategy which kept spending below budget. The hedged purchases through the end of the fiscal year are expected to be close to or below projected market prices.

For the FY25-to-date costs, Mr. Jacobs noted that while most costs are at approximately 25% of budget, water and electric costs are over 25% for the cooling season, and other costs will catch up in the winter season. Mr. Jacobs noted that the MFA was $3 million in 2003, and that cost is down to $385,000. Although some debt was retired with a "balloon payment" last year, anticipated additional debt service in 2028 will extend need for MFA, but it is not likely to increase the annual amount. Mr. Taylor asked if the new Customer Service Agreements will help with cost recovery and eliminating the MFA. Mr. Jacobs responded that the impact of new contracts will not be known until after the annual true-up of costs.

Mr. Jacobs observed during the quarterly EGF Walkthrough that a leak on the plant's water supply line has been repaired.

Jon Belcher discussed the EDS Walkthrough and his observations, highlighting valve evaluations and the completed valve tagging. Mr. Belcher noted that a significant condensate leak on Third Avenue revealed that incorrect pipe material was used in the installation; therefore, in addition to the immediate repair, a pipe replacement project was implemented to correct the internal corrosion. Mr. Belcher noted additional condensate return line repairs at Printer's Alley. He also updated the status of several EDS projects, noting other corrosion repair projects.

Mr. Jacobs reviewed the FY26 Capital Expenditures of approximately $333,000 through the end of October.

For the status of Capital Projects, Mr. Jacobs updated the items completed for the Peabody Union complex and delays for a potential new customer near Printer's and Banker's alleys. Mr. Jacobs noted the project delays for the Auto Nashville Hotel. Mr. Belcher updated the status of multiple EDS projects. Ms. McGauran asked if the project report could include budgets and schedules (particularly completion dates) with the status update. Mr. Jacobs agreed to work on the presentation format.

The System Operator, DEAO [Constellation], presented an update for the Advisory Board. Mike Winters commented that Nashville's system at just over 20 years old is relatively young compared to many systems around the country and is in good condition. Mr. Winters highlighted the safety record of the DEAO staff and its contractors. He also noted the system reliability and the narrow margin by which a performance guarantee was exceeded. Mr. Winters commended the staff for partnering with Operation Stand Down for community service and for safely executing a steam outage and repairing the water supply line without shutting down the plant.

As a Special Topic, Mr. Jacobs described how the Business Plan developed in 2020 could be updated now that economic conditions have settled in the post-pandemic era.

For Other Board Member Items, Ms. Hill polled the Board members for interest in touring the plant and tunnels. Ms. Hill also asked if the Advisory Board meetings could be broadcast on the Metro Nashville Network to increase the visibility of DES. Ms. Fancher agreed to investigate the logistics of broadcasting. Mr. Taylor asked if the activities of The Boring Company would impact DES. Mr. Jacobs noted that published routing maps were not near the DES infrastructure.

Ms. Hill adjourned the meeting at 11:35 a.m.

The next regular Board Meeting will be held Thursday, November 20, 2025, at 10:00 a.m.

These minutes were approved on ________________.