

Operations Monitoring Report

First Quarter FY26

Prepared by:

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October 31, 2025

I. Executive Summary

A review of the fiscal year 2026 (FY26) First Quarter performance and contract obligations between DE Asset Operations, LLC (DEAO) and the Metropolitan Government of Nashville and Davidson County (Metro) is presented in this report by Thermal Engineering Group, Inc. (TEG). The status of the available funds for all active capital construction and repair and improvement projects is also presented.

During the First Quarter FY26, DEAO met the performance guarantees for the steam-fuel, steam-electric and steam-water for quarter but did not meet the chilled water-water for each month and the chilled water-electric in July. One cooling tower fan was offline for part of July which contributed to failing to meet the chilled water-electric guarantee. DEAO is required to meet the performance criteria included within Amendments 2 and 3 each month in accordance with Paragraph 8.d of Amendment 2 of the Amended and Restated DES Management Agreement (ARMA) between Metro and DEAO and Section 18 of the ARMA. DEAO has made operational changes and other improvements to the DES over the past few years which have resulted in increased efficiency of the boiler and chiller plants. DEAO and TEG continue to monitor the efficiency and performance of the DES looking for means of improving the system.

The First Quarter FY26 chilled water sales increased 5.3% compared to the previous First Quarter (FY25) which was accompanied by a 2.3% increase in cooling degree days. The chilled water sendout increased 5.2% over the previous First Quarter resulting in an increase in the system losses. The peak chilled water demand for the current quarter was 17,997 tons, which is marginally higher than in the previous First Quarter.

Steam sendout for the current quarter increased 10.4% over the previous First Quarter with steam sales increasing 17.4%. Total steam system losses decreased 7.5% from the previous First Quarter. The peak steam demand for the current quarter was 64,012 pounds per hour, which represents an increase in the previous First Quarter demand of approximately 23.0%. The number of heating degree days remained zero.

Work continued with EDS Projects during the First Quarter. There are nineteen projects listed in this report. Four projects were closed during the quarter, and two others are in close-out. TEG provides development, design, or construction phase services for the balance of thirteen projects. Of these thirteen projects, eight projects have ongoing design or construction activities as of the end of the quarter. DEAO's scope managing the construction phase of projects has ongoing activities in seven of these projects with occasional involvement in two others. As noted in prior quarterly monitoring reports, several deficiencies remain deferred or postponed which can result in increased maintenance costs to DES. Two projects were added during the First Quarter FY26.

The current fiscal year operating costs to date are \$5,927,442. This value represents approximately 26.5% of the total budgeted operating cost for FY26. The total system revenues from the sales of steam and chilled water to date are \$5,697,569 (25.97% of budgeted amount) which includes the annual true-up amount for FY25 and other miscellaneous revenue sources. Since the electric costs for the summer months is typically greater than other quarters, the costs to date reflect electric expenses greater than 25% of the budgeted amount. Metro has reported that the Metro Funding

Amount (MFA) transfers of \$96,250 (25.0% of budget) have been made to date. The actual MFA can only be estimated due to outstanding invoices as of the date of this report.

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II. Energy Distribution Sales and Performance

A. Chilled Water

This section of the report discusses and presents performance information regarding the operation of the EGF for the periods described. Charts and tabular data are also presented to provide a more detailed description of the actual EGF performance.

1. Sales and Sendout

A comparison for the First Quarter chilled water sales is shown in Figure 1. This data reflects a 5.3% increase in sales for the current quarter over the same quarter of the previous fiscal year. However, the number of cooling degree days increased by only 2.3%. Several issues were experienced with several customer meter panels during the quarter resulting in a need to estimate their monthly usage. Estimating a customer's usage includes averaging the previous three-year average of usage which may not accurately reflect the actual usage for the month. DEAO and TEG have investigated this issue and determined the primary cause to be unauthorized internet access to the meter panels. Customers were notified of these issues since the internet security of the panels is the customers' responsibility. In addition, data from a number of the customer panels had to be manually retrieved due to this issue and disconnected internet connections. DEAO and TEG continue to direct the customers to resolve those issues under their control.

The peak chilled water demand as measured at the EGF for the current quarter is 17,997 tons, which is only marginally greater than the previous First Quarter. This peak demand occurred in July where the simultaneous peak customer demand was only 17,008 tons. Neither of these demands reflect an historic peak but do indicate a potential increase in system losses or a change in the accuracy of the EGF metering.

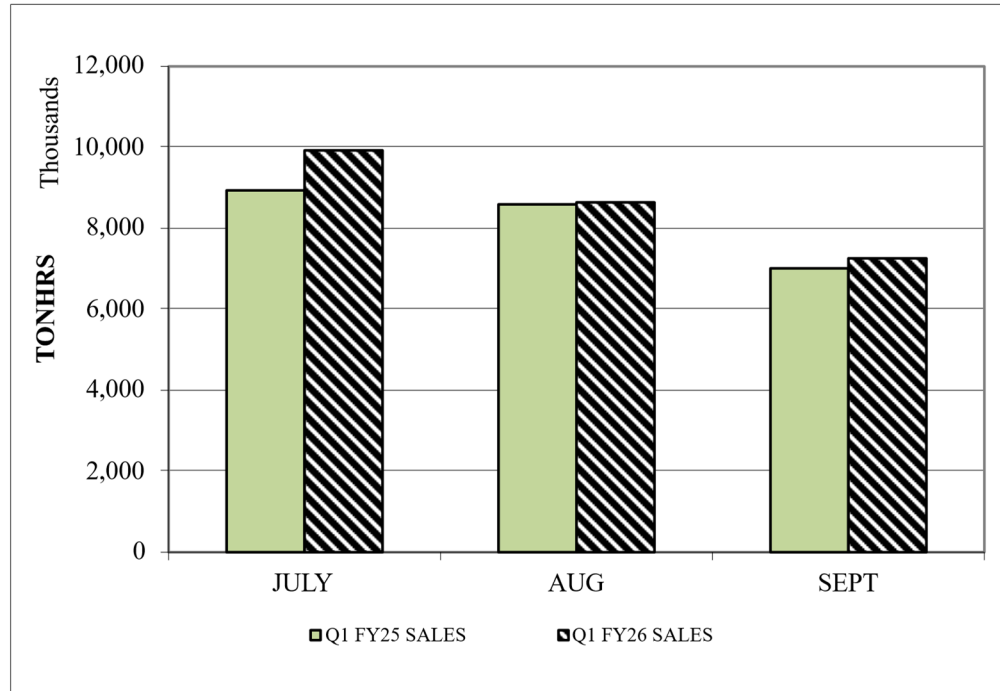


Figure 1. Chilled Water Sales Comparison

Figure 2 shows the chilled water sales, sendout and losses for the previous twelve months.

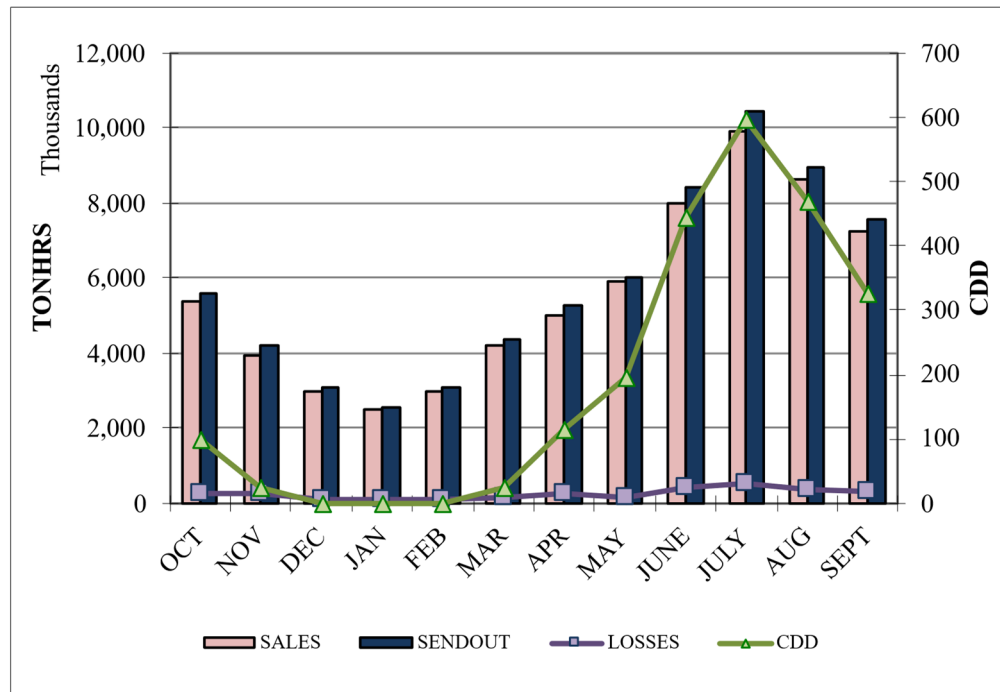


Figure 2. Chilled Water Sales, Sendout, Losses and CDD for the Previous Twelve Months

2. Losses

A comparison of the total chilled water energy losses in the EDS for the First Quarter FY26 is shown in Figure 3. These losses are the difference in chilled water sendout and sales and may reflect differences in the meter accuracy between the EGF sendout meter, the customer meters, and the monthly usage estimated for several of the customers. The losses increased 2.6% over the previous First Quarter. This quarter marks the first quarter in over a year where the losses have increased over the previous quarters.

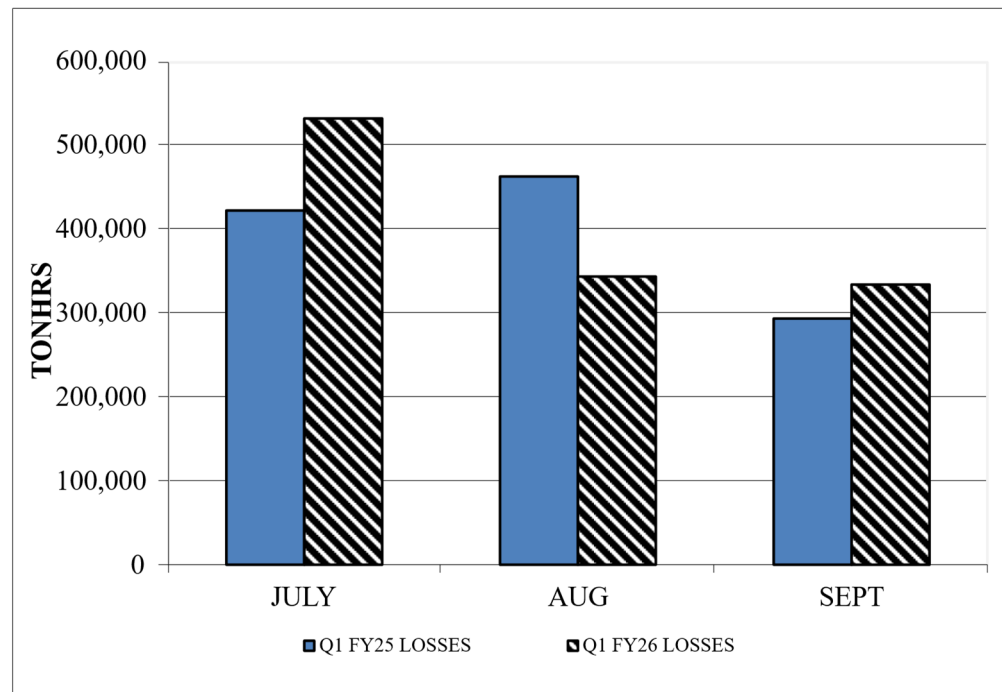


Figure 3. Chilled Water System Loss Comparison

The EDS make-up decreased 29.3% over the previous First Quarter. With the repair of the leak on Third Avenue North in April, the EDS make-up has returned to a relatively low 5 to 6 gpm. A customer did have a mechanical issue in their building in July which prompted a brief period of increase in the make-up for the system. TEG and DEAO continue to monitor the EDS make-up to locate any additional leaks within the EDS. If additional leaks are discovered, DES will address the issue promptly.

The make-up to the cooling towers increased 4.6% over the previous First Quarter coinciding with a 5.2% increase in chilled water production. The water usage in the cooling towers is typically proportional to the production of chilled water and should likewise vary with chilled water sales. Since the chilled water production increased over the previous quarter, the amount of heat rejection through evaporation in the cooling towers would be expected to increase. However, the reduction in the amount of evaporation may be due to one cooling tower fan being

offline for a portion of July when the load was the highest. The total chiller plant water use increased 3.8% over the previous First Quarter. The overall city water make-up comparison for the chilled water system First Quarter is shown in Figure 4. (Chilled water production is the same as chilled water sendout since there are no in-plant losses for the chilled water.)

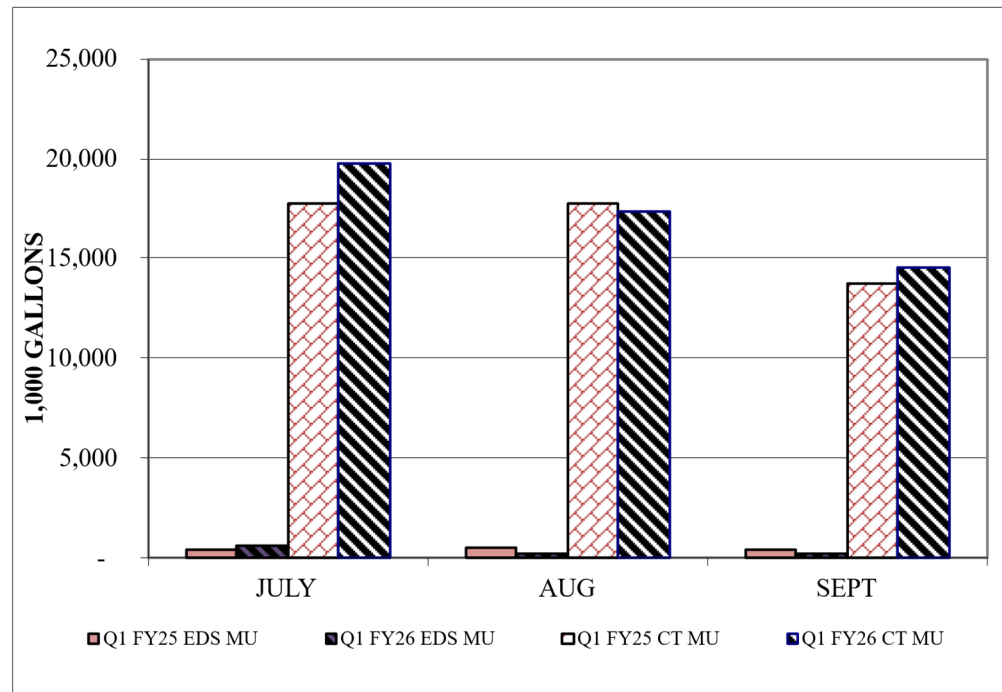


Figure 4. Chilled Water System City Water Usage Comparison

The cooling tower blowdown is monitored and controlled to maintain the conductivity of the condensing water within a range of 1,000 to 1,150 micromhos. The relationship between the cooling tower blowdown and the chilled water production should be consistent and tracking this relationship has proven helpful in reducing the chiller plant make-up water usage. DEAO has made operational changes with respect to the ratio of the cooling tower blowdown to the chilled water production over the past several years with the expectation of reducing the water usage and improving their performance relative to the chilled water-water guarantee. A comparison of the First Quarter values between FY25 and FY26 are shown in Figure 5.

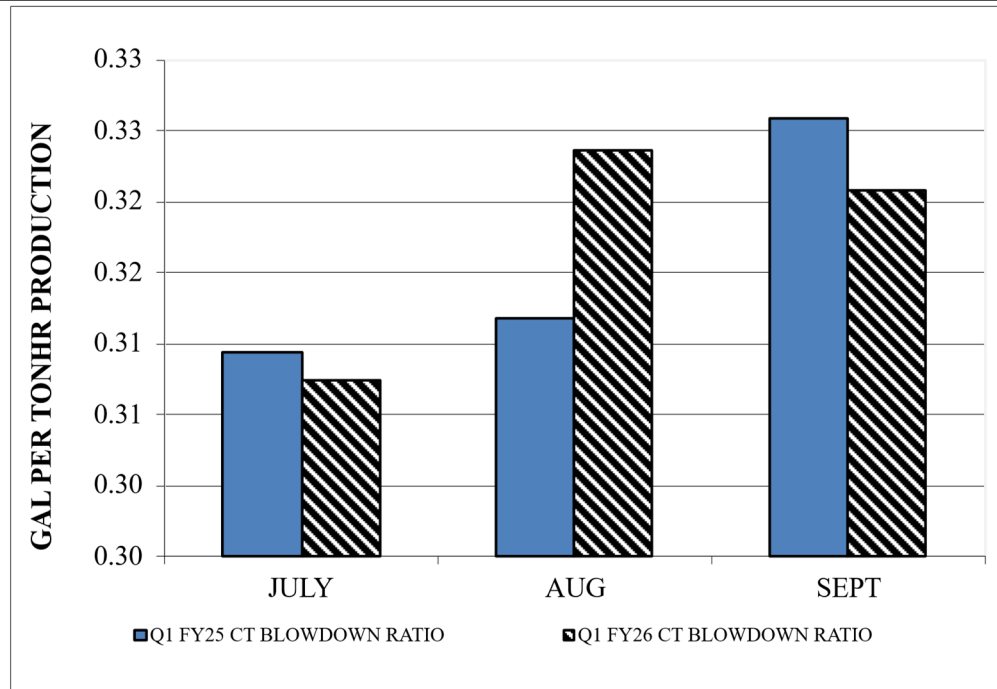


Figure 5. Cooling Tower Blowdown Ratio Comparison

When a comparison is made between the First Quarter FY25 and FY26, the average cooling tower blowdown ratio increased marginally. The chilled water-water performance guarantee was not met in any month during the First Quarter FY26 or in the First Quarter FY25. During both quarters, the average cooling tower blowdown ratio was above 0.30 gallons per ton-hour. The metric averaged 0.317 gallons per ton-hour produced for the First Quarter FY26 and 0.315 in the First Quarter FY25. Values between 0.27 and 0.30 appear to result in more favorable operation and water usage and the chilled water-water performance metrics are met. The cooling tower blowdown ratio metric will continue to be tracked and monitored to verify the operational changes made by DEAO at the EGF continue to result in a decrease in chiller plant water usage.

3. Performance

The performance of the chilled water portion of the EGF is presented in the following two charts, Figures 6 and 7, for the previous twelve months. The electricity usage per unit of sales increased 0.1% over the previous First Quarter even though the metric was not met in July. DEAO's investigation into the capture of the in-plant electric data in FY25 led to a discrepancy with the steam-electric data and how this data is used with the information provided to TEG and included in the customer invoices. The impact on the chilled water-electric remains unknown as of the end of the First Quarter, but the investigation and potential corrective factors are ongoing.

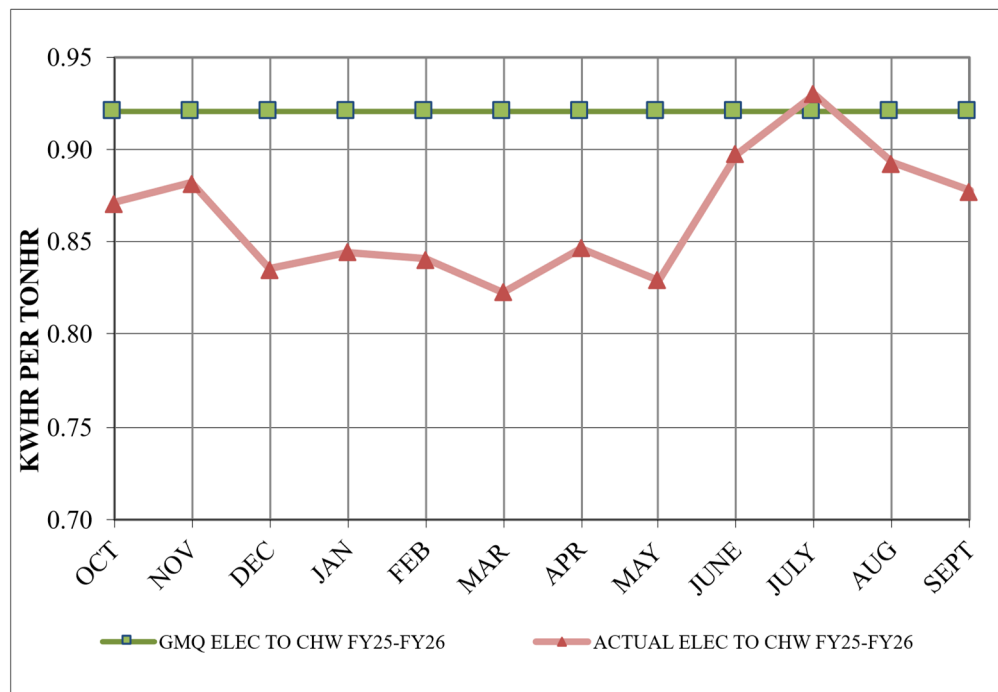


Figure 6. Chiller Plant Electric Performance Guarantee Comparison for the Previous Twelve Months

The total consumption of city water for the chiller plant for the current quarter increased 3.8% over the previous First Quarter. The cooling tower blowdown increased 5.7%. The side stream filter backwash increased 10.1% possibly due to an increase in the circulation rate of the chilled water due to an increase in sales. DEAO did not meet the chilled water-water performance metric any month during the quarter. Failing to meet this metric appears to be related to operating with a cooling tower blowdown ration greater than 0.30. Figure 7 shows the metric for the previous twelve months. TEG and DEAO continue to monitor the water usage and chiller plant performance with the goal of decreasing the energy and water usage for the system.

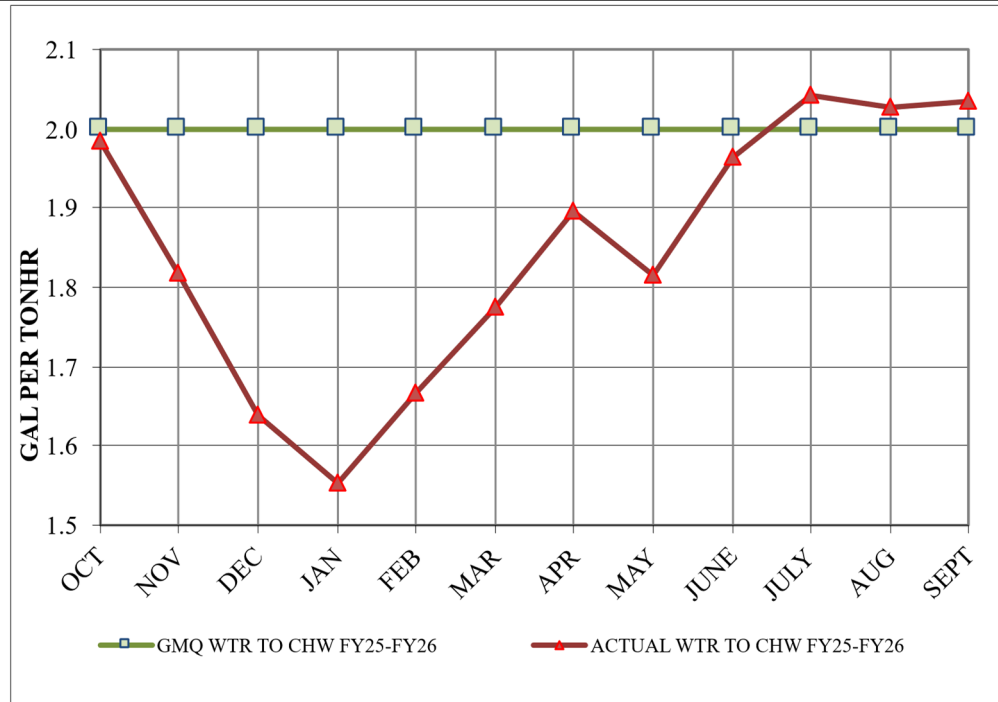


Figure 7. Chiller Plant Water Consumption Performance Guarantee Comparison for the Previous Twelve Months

B. Steam

1. Sales and Sendout

The steam sendout increased 10.4% over the previous First Quarter, and the sales increased 17.4%. The number of heating degree days remained the same as the previous First Quarter at zero. The steam system losses decreased 9.0%. The relative amount of condensate return decreased 8.1% over the previous First Quarter. The peak steam demand for the current quarter was 64,012 pph, which reflects a 22.9% increase in the peak steam production over the previous First Quarter.

The increase in steam usage by the customers may be driven by an increase in the domestic hot water production at the hotels and event venues and an increase in the amount of reheat required due to higher relative humidities. These factors often contribute to higher than expected steam usage during warmer months. However, several issues were experienced with several customer meter panels during the quarter resulting in a loss of metered data. As with the chilled water sales, the steam usage for several customers were estimated using the previous three-year average which may not accurately reflect the actual usage for the month. DEAO and TEG have investigated this issue and determined the primary cause to be unauthorized internet access to the meter panels. Customers were notified of these issues since the internet security of the panels is the customers' responsibility. In addition, data from a number of the customer panels had to be manually retrieved due to this issue and disconnected internet connections. DEAO and TEG continue to direct the customers to resolve those issues under their control. A comparison for the First Quarter steam sales is shown in Figure 8.

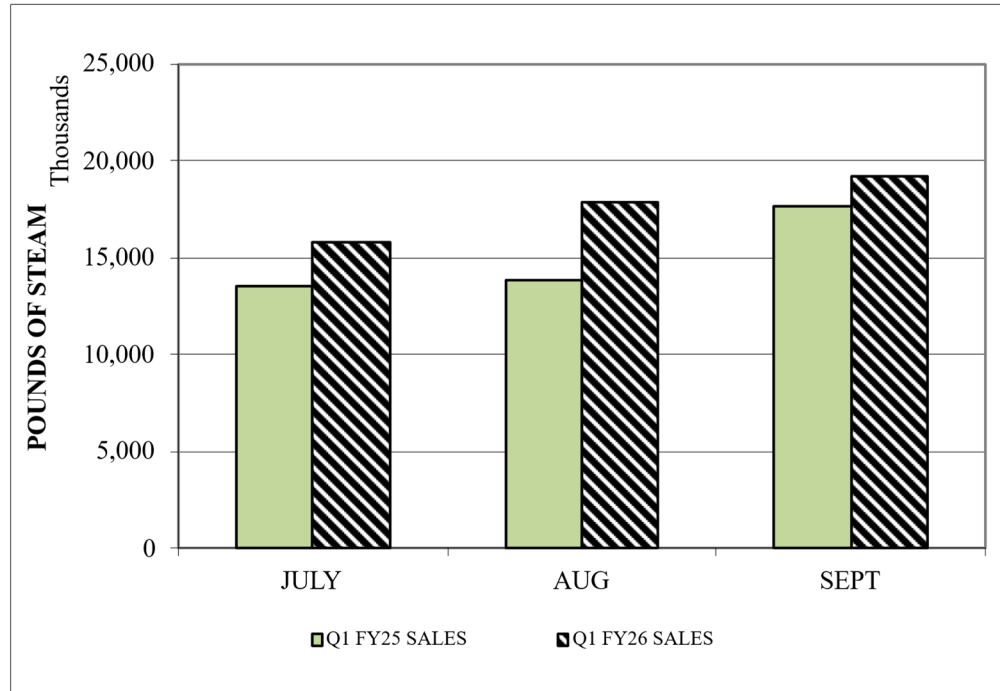


Figure 8. Steam Sales Comparison

Figure 9 shows the steam sales, sendout and losses for the previous twelve months. The losses on this figure are defined as the difference in pounds per month between the recorded sendout and sales values and represent the total mass loss in the EDS between the EGF and the customer meters.

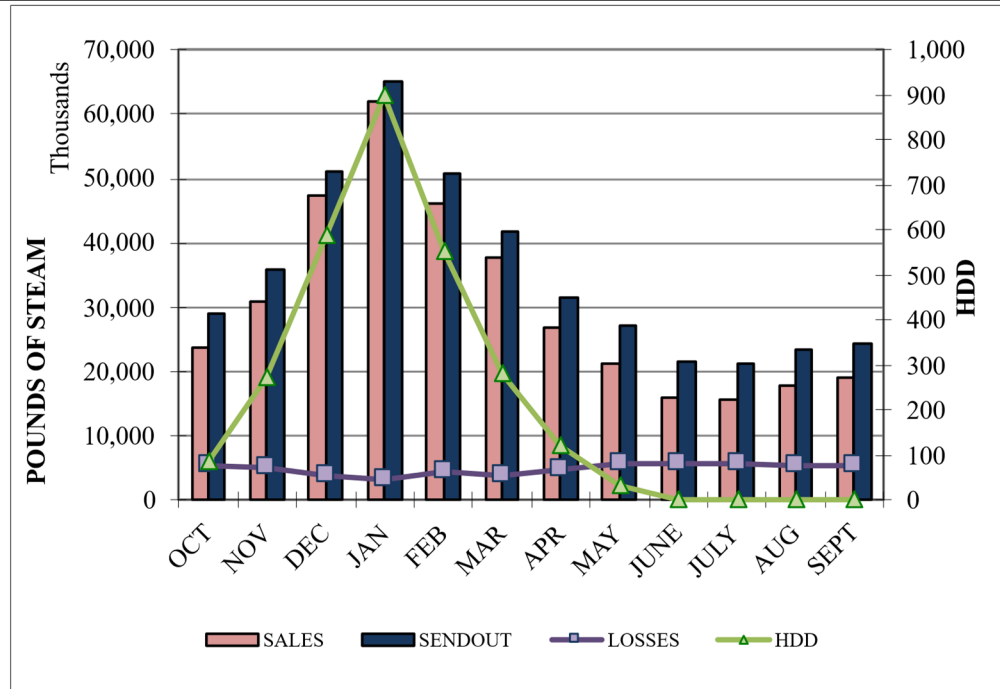


Figure 9. Steam Sales, Sendout, Losses and HDD for the Previous Twelve Months

2. Losses

A comparison of the total steam mass losses in the EDS for the First Quarter is shown in Figure 10. The mass loss is caused by the heat loss in the EDS between the EGF and the customer meters, resulting in a mass loss at steam traps. Faulty traps, steam leaks, or meter error could also be a contributing cause of these losses.

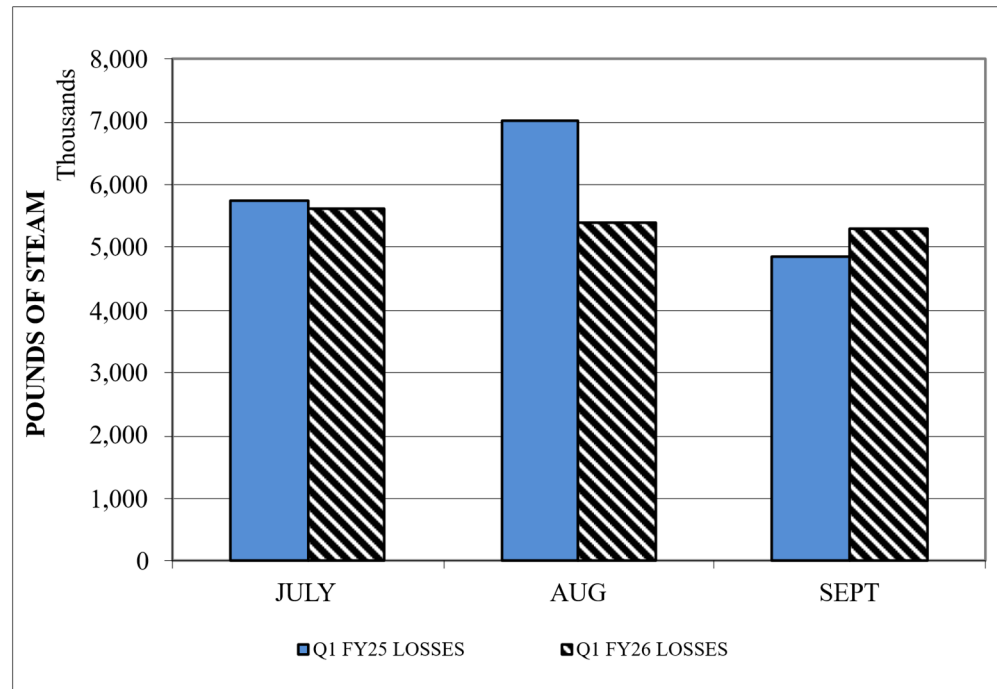


Figure 10. Steam System Losses

The amount of city water make-up (MU) to the steam system consists of the loss in mass between the EGF and the customers, in the condensate return from the customers to the EGF and losses at the EGF. The amount of make-up to the steam system increased 10.1% over the First Quarter FY25. However, the relative amount of condensate return decreased 8.1% over the previous First Quarter.

A condensate leak on Third Avenue North (in the intersection with James Robertson Parkway) was discovered during the quarter requiring several customers north of the leak to stop returning condensate to the plant. The repairs are ongoing as of the end of the First Quarter with work being performed as part of project DES236. The corresponding data for steam system make-up is shown in the comparison of First Quarter data in Figure 11.

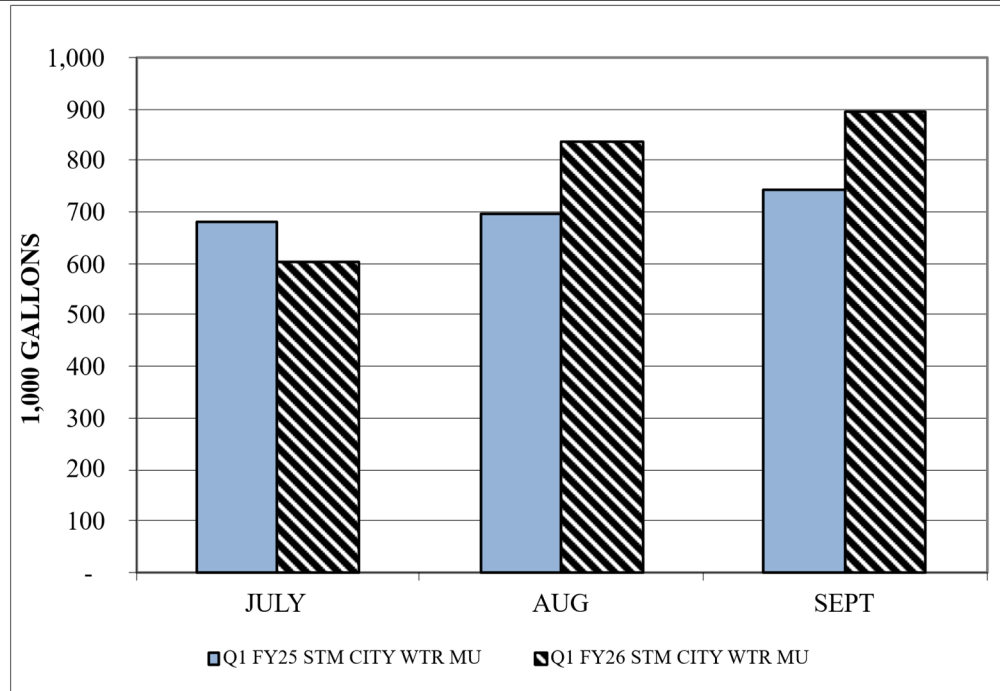


Figure 11. Steam System City Water Make-up Comparison

3. Performance

The performance of the steam system of the EGF is presented in the following three charts, Figures 12, 13, and 14. With Amendment 3, the steam-electric and steam-fuel metrics and their calculation methodology remain unchanged from Amendment 2. The determination of condensate return with Amendment 3 uses a real time density correction on the condensate return flow rate such that a comparison on the steam sendout and condensate return could be made on a mass basis.

The steam electric conversion factor was met for each month of the quarter. The steam plant electric consumption for the current quarter was 7.1% lower in the First Quarter FY26 than in the previous First Quarter. The steam-electric metric decreased 22.0% over the previous First Quarter.

DEAO's investigation into the capture of the in-plant electric data in FY25 led to a discrepancy with the steam-electric data and how this data is used with the information provided to TEG and included in the customer invoices. This issue may have influenced the inability to meet the performance goal in May. The impact on the steam-electric remains unknown as of the end of the First Quarter. However, the decrease in total plant electric usage coinciding with an increase in steam sales and an increase in the peak steam demand for the quarter may indicate an issue with both the customer meters used to determine sales and the capture of the in-plant electric usage.

The monthly steam-electric conversion factors, along with the guaranteed values, for the previous twelve months are shown in Figure 12.

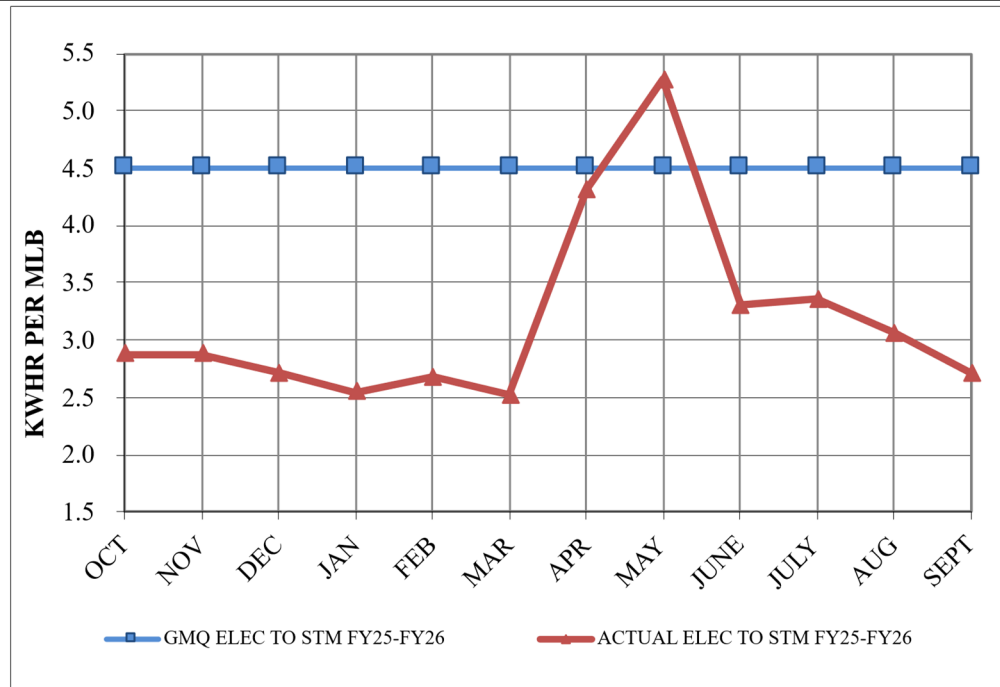


Figure 12. Steam Plant Electric Performance Guarantee for the Previous Twelve Months

For the First Quarter, the boiler plant water usage increased 10.1%. The increase in water usage resulted in a 10.1% increase in the steam-water metric. Using the Amendment 3 methodology, the metric was met each month during the quarter. Figure 13 shows the steam-water metric using new methodology addressed in Amendment 3

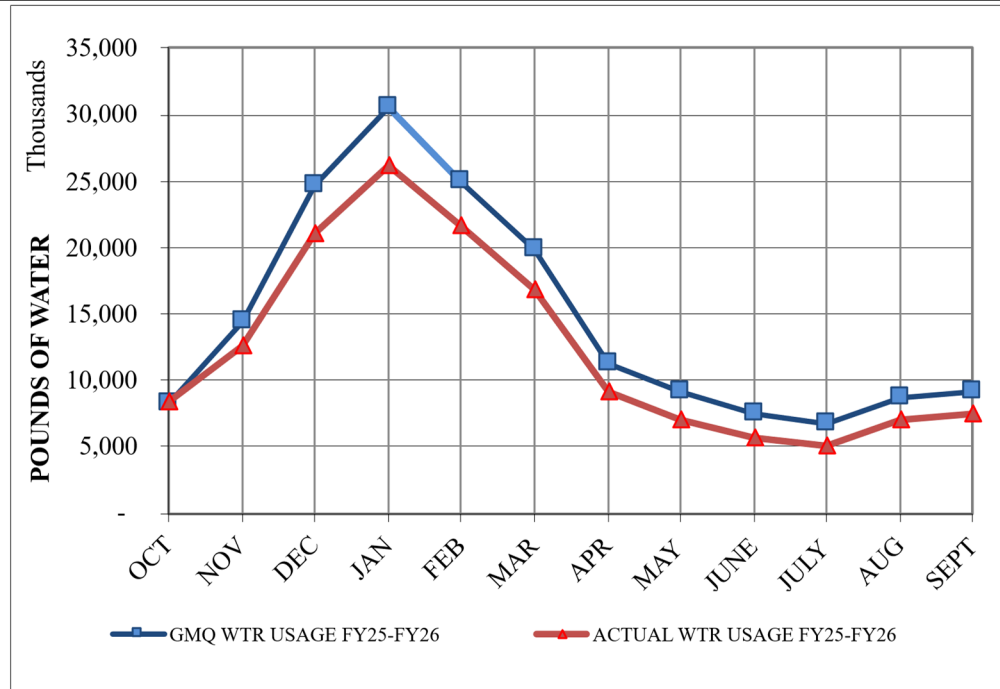


Figure 13. Steam Plant Water Performance Guarantee for the Previous Twelve Months Using a Mass Comparison

The steam-fuel metric did not change in Amendment 3; however, the relative amount of condensate return is reported using the mass flow determined by the density corrected values used in the steam-water metric. The actual steam-fuel metric was met each month during the First Quarter. The fuel consumption per unit of steam sendout increased 2.0% over the previous First Quarter indicating a decrease in efficiency.

Figure 14 shows the performance of the conversion factors for the previous twelve months. The relative amount of condensate return is shown on this graph to reflect the influence the condensate return has on the plant efficiency.

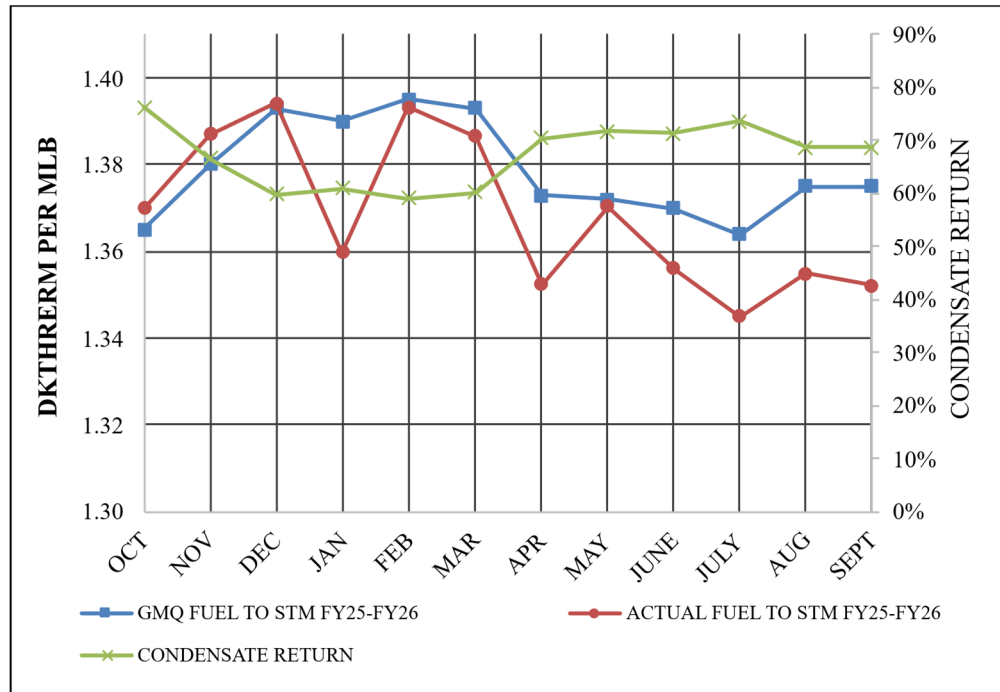


Figure 14. Steam Plant Fuel Performance Guarantee for the Previous Twelve Months

C. Contract Guarantee Performance

The production and sales performance for the EGF and EDS are summarized in Table 1 for the current quarter and the fiscal year. Additional parameters, such as cooling tower blow-down and peak demands are listed in this table, as well. Table 2 presents the First Quarter comparisons of the Guaranteed Maximum Quantities (GMQ) or System Performance Guarantees of the criteria commodities (fuel, water, and electricity). Table 2 lists the steam-water conversions (GMQ and actual) based on the volumetric and mass flow comparisons.

Table 1. First Quarter Production, Sales, and Consumption Summary

Item	Unit	First Quarter FY26	First Quarter FY25	*Percent Difference
	days	92	92	0.00%
Total Electric Use	kWhrs	23,421,668	22,167,841	5.66%
Chilled Water	kWhrs	23,262,071	21,996,148	5.76%
Steam	kWhrs	159,597	171,693	-7.05%
Total Water Use	kgal	54,825	52,702	4.03%
Total Chilled Water	kgal	52,490	50,581	3.77%
EDS Make-up	kgal	916	1,295	-29.27%
Cooling Towers	kgal	51,572	49,286	4.64%
Calc CT Evaporation	kgal	43,032	41,208	4.43%
CT Blowdown	kgal	8,540	8,078	5.72%
Calc # Cycles		5.04	5.10	-1.22%
Sidestream Filter Backwash	gal	8,236	14,924	-44.81%
Steam	kgal	2,336	2,121	10.12%
Total Fuel Use	mmBTU	93,376	82,954	12.56%
Natural Gas	mmBTU	93,376	82,954	12.56%
Propane	mmBTU	0	0	0.00%
Condensate Return	kgal	5,986	5,921	1.10%
	lbs	48,569,937	47,867,151	1.47%
Avg Temp	°F	181.7	185.0	-1.80%
Sendout				
Chilled Water	tonhrs	26,978,500	25,653,400	5.17%
Steam	lbs	69,126,000	62,616,000	10.40%
Peak CHW Demand	tons	17,997	17,845	0.85%
Peak Steam Demand	lb/hr	64,012	52,072	22.93%
CHW LF		67.89%	65.11%	4.28%
Steam LF		48.91%	54.46%	-10.20%
Sales				
Chilled Water	tonhrs	25,770,367	24,475,958	5.29%
Steam	lbs	52,808,117	44,984,654	17.39%
Losses				
Chilled Water	tonhrs	1,208,133	1,177,442	2.61%
Steam	lbs	16,317,883	17,631,346	-7.45%
		23.61%	28.16%	-16.17%
Degree Days				
CDD		1,392	1,361	2.28%
HDD		0	0	NA
Cooling Tower Blowdown Ratio				
Cooling Tower Blowdown	gal	8,540,000	8,078,050	5.72%
Chilled Water Production	tonhrs	26,978,500	25,653,400	5.17%
Ratio	gal/tonhrs	0.317	0.315	0.53%

*positive percent difference values imply an increase from FY25 to FY26

Table 2. First Quarter Performance Guarantee Comparison for Steam and Chilled Water

GMQ Calculations	Unit	First Quarter FY26	First Quarter FY25	*Percent Difference
Steam				
GMQ Elec Conversion	kWhr/Mlb	4.50	4.50	
Electric Conversion	kWhr/Mlb	3.04	3.88	-21.54%
GMQ Plant Efficiency	Dth/Mlb	1.371	1.360	
Plant Efficiency	Dth/Mlb	1.351	1.325	1.95%
Actual %CR		70.26%	76.45%	-8.09%
Avg CR Temp	°F	182	185	-1.80%
GMQ Water Conversion	gal	2,956,998	2,121,628	
Water Conversion	gal	2,335,530	2,120,950	10.12%
GMQ Water Conversion	lbs	24,667,276	17,698,618	
Water Conversion	lbs	19,482,991	17,692,965	10.12%
Chilled Water				
GMQ Elec Conversion	kWhr/tonhr	0.920	0.930	
Electric Conversion	kWhr/tonhr	0.900	0.899	0.14%
GMQ Water Conversion	gal/tonhr	2.00	2.00	
Water Conversion	gal/tonhr	2.04	2.06	-1.36%

*positive percent difference values imply an increase from FY25 to FY26

D. Operating Costs

The fixed operating costs for the DES include the management fee to DEAO, debt service payments on the bonds and engineering and administration costs and are charged to the Initial System Customers (ISCs) relative to their contract demand. For all non-ISCs, their fixed costs are principally based on a value established by their contracts and are not tied directly to the actual costs of the debt service or DEAO's management fee.

The variable costs are dependent on the amounts of steam and chilled water produced and sold to the customers. These latter costs include the utility and chemical treatment costs and are passed onto the customers directly without mark-up resulting in a 100% recovery of the costs by the customers. A summary of the total operating costs for the fiscal year-to-date is shown in Table 3.

Table 3. DES Expenses and Revenues to Date

Item	FY26 Budget	First Quarter Expenses	Second Quarter Expenses	Third Quarter Expenses	Fourth Quarter Expenses	Total Spending to Date	% of Budget
Operating Management Fee							
FOC: Basic	\$ 4,378,300	\$ 1,082,900	\$ -	\$ -	\$ -	\$ 1,082,900	24.73%
9th Chiller	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	n.a.
C/O 6A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	n.a.
C/O 6B	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	n.a.
C/O 7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	n.a.
C/O 8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	n.a.
Pass-thru Charges:							
Chemical Treatment	\$ 330,300	\$ 91,695	\$ -	\$ -	\$ -	\$ 91,695	27.76%
Insurance	\$ 40,200	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
Marketing:							
CNE Sales Activity	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	n.a.
Incentive Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	n.a.
FEA:							
Steam	\$ 81,900	\$ 4,164	\$ -	\$ -	\$ -	\$ 4,164	5.08%
Chilled Water	\$ 140,500	\$ (22)	\$ -	\$ -	\$ -	\$ (22)	-0.02%
Misc:							
Metro Credit	\$ -	\$ (449,767)	\$ -	\$ -	\$ -	\$ (449,767)	n.a.
ARFA	\$ 68,800	\$ 17,031	\$ -	\$ -	\$ -	\$ 17,031	24.75%
Deferral	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	n.a.
Subtotal - Man Fee =	\$ 5,040,000	\$ 1,195,769	\$ -	\$ -	\$ -	\$ 1,195,769	23.73%
Reimbursed Management Fee + Chem Treatment		\$ 382,376	\$ -	\$ -	\$ -	\$ 382,376	0.00%
Metro Costs							
Pass-thru Charges:							
Engineering	\$ 102,500	\$ 34,995	\$ -	\$ -	\$ -	\$ 34,995	34.14%
EDS R&I Transfers	\$ 763,600	\$ 190,900	\$ -	\$ -	\$ -	\$ 190,900	25.00%
Metro Marketing	\$ 76,600	\$ 34,936	\$ -	\$ -	\$ -	\$ 34,936	45.61%
Project Administration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	n.a.
Metro Incremental Cost	\$ 533,900	\$ 112,459	\$ -	\$ -	\$ -	\$ 112,459	21.06%
Utility Costs:							
Water/Sewer	\$ 1,250,900	\$ 428,695	\$ -	\$ -	\$ -	\$ 428,695	34.27%
EDS Water/Sewer	\$ -	\$ 51	\$ -	\$ -	\$ -	\$ 51	n.a.
EDS Electricity	\$ 73,800	\$ 21,072	\$ -	\$ -	\$ -	\$ 21,072	28.55%
Electricity	\$ 5,986,100	\$ 2,162,237	\$ -	\$ -	\$ -	\$ 2,162,237	36.12%
Natural Gas Consultant	\$ 18,600	\$ 4,140	\$ -	\$ -	\$ -	\$ 4,140	22.26%
Natural Gas Transport	\$ -	\$ 79,794	\$ -	\$ -	\$ -	\$ 79,794	n.a.
Natural Gas Fuel	\$ 3,593,840	\$ 335,003	\$ -	\$ -	\$ -	\$ 335,003	9.32%
Propane	\$ 144,160	\$ 95,176	\$ -	\$ -	\$ -	\$ 95,176	66.02%
Subtotal - Metro Costs =	\$ 12,544,000	\$ 3,499,458	\$ -	\$ -	\$ -	\$ 3,499,458	27.90%
Subtotal - Operations =	\$ 17,584,000	\$ 4,695,227	\$ -	\$ -	\$ -	\$ 4,695,227	26.70%
Debt Service							
2012A Bonds	\$ 3,430,800	\$ 913,320	\$ -	\$ -	\$ -	\$ 913,320	26.62%
Self-Funded Debt	\$ 1,355,600	\$ 318,895	\$ -	\$ -	\$ -	\$ 318,895	23.52%
MIP	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	n.a.
Oper. Reserve Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	n.a.
Subtotal - Capital =	\$ 4,786,400	\$ 1,232,216	\$ -	\$ -	\$ -	\$ 1,232,216	25.74%
Total =	\$ 22,370,400	\$ 5,927,442	\$ -	\$ -	\$ -	\$ 5,927,442	26.50%
Customer Revenues							
Taxes Collected		\$ 142,191	\$ -	\$ -	\$ -	\$ 142,191	n.a.
Taxes Paid		\$ 99,721	\$ -	\$ -	\$ -	\$ 99,721	n.a.
Interest & Misc Revenue	\$ 568,700	\$ 102,800	\$ -	\$ -	\$ -	\$ 102,800	18.08%
Penalty Revenues/Credits	\$ -	\$ (39,535)	\$ -	\$ -	\$ -	\$ (39,535)	n.a.
Energy Revenues Collected	\$ 21,416,700	\$ 5,591,834	\$ -	\$ -	\$ -	\$ 5,591,834	26.11%
Revenues =	\$ 21,985,400	\$ 5,697,569	\$ -	\$ -	\$ -	\$ 5,697,569	25.92%
Metro Funding Amount =	\$ 385,000	\$ 229,873	\$ -	\$ -	\$ -	\$ 229,873	59.71%

The revenues shown in Tables 3 and 4 (Customer Revenue Summary to Date) reflect the charges to the customers for their respective steam and chilled water service. The difference between the total costs and revenues from the customers is the shortfall that must be covered by Metro. The shortfall exists due to the remaining unsold capacity at the EGF and the debt service for bonds to which the customers do not directly contribute.

The current fiscal year operating costs to date are \$5,927,442. This value represents approximately 26.5% of the total budgeted operating cost for FY26. The total system revenues from the sales of steam and chilled water for FY26 are \$5,697,569 (25.9% of budgeted amount) which includes the annual true-up amount for FY25 (\$40,134.19) and other miscellaneous revenue sources. Metro has reported that the Metro Funding Amount (MFA) transfers of \$96,250 (25.0% of budget) have been made to date. The actual MFA can only be estimated due to outstanding invoices as of the date of this report.

The DES serves 22 customers and 43 buildings in downtown Nashville (including the Auto Nashville Hotel). These customers are divided into three categories: 1) Privately-owned buildings, 2) State of TN-owned buildings and 3) Metro-owned buildings. The New Customers listed in Table 4 are non-Initial System private customers. A summary of the annual costs for each of these three categories is presented in Table 4. This row contains values for late fees and penalties, and any unpaid balances.

Table 4. Customer Revenue Summary to Date

Building	Chilled Water				Steam		
	Total Cost	Consumption (tonhrs/yr)	Unit Cost (\$/tonhr)		Total Cost	Consumption (Mlb/yr)	Unit Cost (\$/Mlb)
Private Customers	\$ 1,537,820	9,212,008	\$ 0.1669		\$ 361,125	12,820	\$ 28.1687
State Government	\$ 1,062,990	5,409,734	\$ 0.1965		\$ 453,601	18,384	\$ 24.6741
Metro Government	\$ 1,733,520	11,148,625	\$ 0.1555		\$ 443,710	21,604	\$ 20.5380
New Customers	\$ 1,072,794	6,249,523	\$ 0.1717		\$ 289,971	15,238	\$ 19.0296
Total	\$ 4,334,330	25,770,367	\$ 0.1682		\$ 1,258,435	52,808	\$ 23.8303
Total Revenue	\$ 5,592,766						
True-up and Adjustments (Net)	\$ 104,803						
Net Revenue	\$ 5,697,569						

III. EGF Operations

Items relating to the facility operations presented herein are derived from the monthly reports issued by DEAO for FY26. TEG continues to provide oversight of the System Operator (DEAO) and continues to meet regularly to communicate about important issues and on-going projects. DEAO has reported and operated the EGF satisfactorily although improvements in addressing the items noted in the EGF Walkthrough reports are necessary.

A. Reliability

The principal issues surrounding the reliable operation of the EGF relate to the ability to operate without significant interruption, exclusive of planned outages, and disruption of service to the customers. Due to improvements in the operation of the EGF, the number of reportable thirty-minute periods where the steam sendout pressure was less than 150 psig and where the chilled water sendout temperature exceeded 43.3°F continue to remain lower than in previous years. However, trips and excursions are noted for the quarter and the fiscal year.

First Quarter:

A planned outage occurred in August as part of the project DES228. The steam pressure was less than 150 psig for approximately nineteen hours.

The steam pressure was below 150 psig on September 11 for approximately forty-five minutes reaching a low of 101 psig due to a boiler trip. DEAO's investigation revealed a hot spot on a bolted electrical connection on the 1B transformer which is believed to have caused the trip. The transformer was deenergized and repairs were made that day and the transformer was reenergized.

B. Efficiency

DEAO did not meet the chilled water-water metric during the First Quarter and did not meet the chilled water-electric in July. All other metrics were met. A more detailed discussion of the contract guarantee performance was presented previously in this report.

C. Environment, Health, and Safety

No environmental violations were reported during the quarter.

DEAO has implemented and requires regular attendance of online and in-person safety courses for their employees. For the First Quarter, the courses included: Accident Reporting, CPR, AED, and First Aid training by the American Red Cross, and Fire Extinguisher training.

D. Personnel

In July, one of DEAO's stationary engineers passed away due to natural causes. DEAO has pursued hiring his replacement, but as of the end of the quarter, DEAO reported they are currently staffed with eighteen full-time employees, one remote part-time employee and two shared employees. Of the current number of employees, thirteen were previously employed by Nashville Thermal Transfer Corporation.

E. Training

Staff training for this quarter consisted of the Health and Safety discussed previously and other corporate training.

F. Water Treatment

The water treatment program consists of regular testing and monitoring of the water chemistry in the steam, condensate, chilled water, and condensing water systems. Chemicals are added to control the water hardness, chlorine levels, and biologicals and to aid in the prevention of corrosion. Remote testing of the condensate at the AA Birch, Tennessee Tower and the Andrew Jackson buildings also occurs regularly to monitor the concentration and distribution of the steam system chemicals.

- Steam System
 - The relative amount of condensate return averaged approximately 70.3% of the steam sendout during the quarter, which represents a decrease over the previous First Quarter of 8.1%. The decrease in condensate return is due to a leak discovered on Third Avenue North during the quarter.
 - Feedwater iron, pH, and hardness (for the portion of the condensate returned) remained within their acceptable ranges during the quarter and the fiscal year.
- Condensing Water System
 - The conductivity of the condensing water continues to be normal.
 - The cooling tower blowdown increased 5.7% over the previous First Quarter. This increase resulted in an average decrease in the cycles of concentration in the cooling towers of 1.2% for the quarter.
 - DEAO began monitoring and tracking the ratio of the cooling tower blowdown to the chilled water production. The average value for the quarter increased marginally over the previous First Quarter. The chilled water-water metric was not met during the quarter.
- Chilled Water System
 - DEAO continues to monitor and test for the presence of bacteria in the system. The biological growth in the system, as measured at the EGF and at the customer buildings, has become non-existent. Chem-Aqua's proprietary biological treatment system continues to function properly.
 - The side stream filter has significantly reduced the amount of suspended solids in the chilled water and improved the turbidity of the system.

However, the turbidity shows an increasing trend. The water treatment vendor has stated they believe the increase in turbidity may be due to one or more of the following: 1) the presence of the dye in the system used to detect leaks within the EDS, 2) degradation of the filter media, and 3) the presence of particulates entering the system from customer buildings. Additional samples and testing are anticipated in the Second Quarter to help determine the cause and potentially adjust the water treatment.

- Figure 15 shows the results of several measured metrics within the chilled water system which may be affected through the use of the side stream filter. Values shown at or near zero may be at or below the detectable limit and are represented by “zero” on the graph.

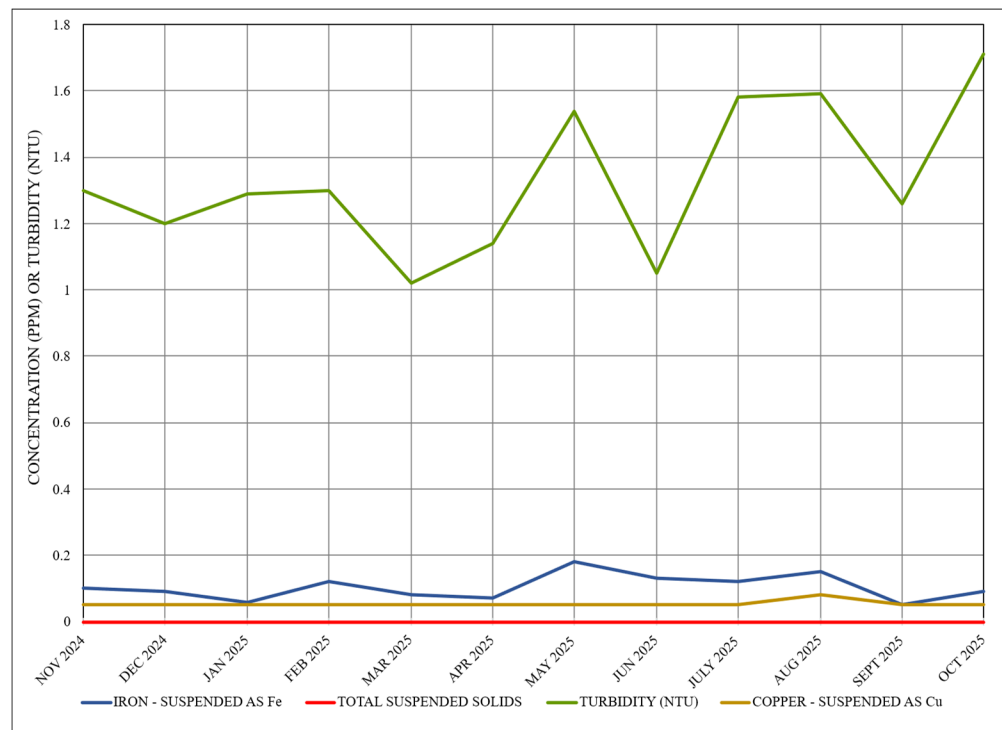


Figure 15. Chilled Water Composition Downstream of Side Stream Filter

G. Maintenance and EGF Repairs

DEAO continues to report on the routine and preventative maintenance activities performed on the EGF primary and ancillary equipment. The principal items are discussed herein as they relate to the repair, maintenance or replacement of equipment or devices at the facility and are not considered extraordinary. The cost for these items is included as part of the FOCs and are not the responsibility of Metro or the DES customers.

Several deficiencies related to the cooling tower maintenance and repair have been noted in several of the previous EGF Walkthrough Reports. TEG remains convinced that the block-style fill in the cooling towers from Evapco used to replace the OEM fill does not provide the same performance as the OEM fill. This type of fill is prone to collecting silt and other deposits further reducing the air flow through the towers. The block-style fill negatively impacts the tower performance which reduces the efficiency and capacity of the chillers.

Repairs and As Needed Maintenance

- Office Janitorial Services, equipment room cleanup, and pest control;
- Checked, updated, and backed up plant computers and servers;
- Assisted with data acquisition for Plant Efficiency (Skyspark);

Repairs or Replacement

- The cooling tower fans belts for CT5 and 13 were replaced;
- The fan bearing for cooling tower 13 was replaced;
- The purge pump on chiller 4 and 7A were replaced;
- The purge sensor for chiller 8A was repaired;
- The roof deck at the cooling tower level was repaired;
- A solenoid on the chiller 1 condenser valve actuator was replaced;
- The isolation valves for boilers 2 and 3 were replaced;
- The boiler vent valves for all four boilers were replaced;
- The purge valves on chiller 6B were repaired;
- The guide vane actuator for chiller 1B was replaced;
- Other repairs, maintenance, and preventative maintenance were made during the quarter and are listed in the monthly reports issued by DEAO.

DEAO includes in their monthly reports to Metro the amounts spent for maintenance and repairs at the EGF. These costs are borne by DEAO and are not included in Metro's budget. Preventive maintenance, equipment replacement, labor, and sub-contractor costs are included in the values shown in Table 5.

Table 5. DEAO Annual EGF Maintenance and PM Reported Costs

Month	Maintenance	Preventive Maintenance
Jul-25	\$44,930	\$34,484
Aug-25	\$65,904	\$22,194
Sept-25	\$70,096	\$22,255
Annual Totals	\$180,931	\$78,932

H. EGF Walkthrough

The EGF Walkthrough was conducted on September 19, 2025, by Kevin L. Jacobs, P.E. Based on the review of the EGF, the following comments and observations are presented. Mr. Jacobs observed the following items during this Walkthrough which require attention.

- The historic customer invoice database files and customer meter data were backed-up by TEG during the quarter to a separate drive and removed from the Metro PC located in the Metro office at the EGF. Data stored on this computer is backed-up daily via Carbonite, but when the files are removed from the PC, the files are subsequently erased from the Carbonite off-site storage. Upon review of the database files, TEG discovered access was restricted by password. TEG, Metro, and DEAO have discussed the need to have passwords to all pertinent computers, systems, and data, such as the customer invoice database files. As of the date of this report, the password and username for the EGF control and monitoring system has been provided to TEG and Metro. However, the other passwords and usernames have not been provided as of the end of the quarter. Resolution to this issue is anticipated in the Second Quarter.
- During the Fourth Quarter FY24 Walkthrough, the control valve on the city water makeup was not insulated and was sweating. DEAO reported at that time they would have the valve insulated by their insulator who was onsite during the Walkthrough making insulation repairs elsewhere in the EGF. During the Fourth Quarter FY24 a bucket with a drain hose was noted as having been installed beneath the valve to collect the condensation from the valve and a small leak from the flange. DEAO repaired the leak and removed the bucket prior to the Second Quarter FY25 Walkthrough. DEAO needs to repair the insulation to the control valve. This insulation was not repaired as of the Second Quarter FY25 Walkthrough. **The valve was insulated during the Third Quarter FY25, but the adjoining isolation and bypass valves have not been insulated. DEAO needs to address the insulation of these valves to prevent condensation and reduce the occurrence of further corrosion. The valves remained uninsulated as of the First Quarter FY26 Walkthrough.**
- The insulation on the condensate and feedwater lines south of boiler B4 needs to be repaired in several locations. The insulation on the steam line west of boiler B4 also needs to be repaired. The hangers on these pipes need to be adjusted and tightened if necessary. **As of the Fourth Quarter FY25 Walkthrough, DEAO had repaired much of this insulation but a section of insulation on the piping beneath the make-up valve west of boiler 4 needed repair. This insulation remained damaged as of the First Quarter FY26 Walkthrough.**
- The water distribution box for cooling tower 11 may be leaking. This leak is similar to the leak noted in cooling towers 12 and 18 and reported in the McHale and Associates report on the cooling towers dated March 6, 2025. **DEAO reported they have investigated the issue and will make repairs after the cooling season. It could not be determined during the Fourth Quarter Walkthrough if the boxes were leaking since all of the towers were operating. During the First Quarter FY26 Walkthrough, the distribution boxes in cooling towers 18, 15,**

11, and 3 were all noted as leaking. Towers 11 and 15 were the most significant. DEAO needs to repair the distribution boxes.

- Damage to the inboard side fill of cooling tower 1 was previously noted. This damage included broken louvers and separated sections of the fill. In addition, similar damage was noted during the Third Quarter FY25 Walkthrough of the outboard side of cooling tower 18 and the inboard sides of towers 4, 10, 14, and 18. “Inboard” refers to the side of the towers facing one another. “Outboard” refers to the side of the towers facing toward the outside of the EGF. **DEAO needs to schedule the replacement and repair of the fill. This item will remain in the Walkthrough reports until such time as the replacement and repairs have been made. As of the First Quarter FY26 Walkthrough, the fill had not been repaired or replaced.**
- Chilled water pump 2 was spraying water from the inboard packing gland. **DEAO made the necessary repairs to the pump and cleaned the area. This item will be removed from future reports.**
- DEAO previously made repairs to the ceiling on the operating floor above motor control center 4 and near boiler 3. The ceiling decking (corrugated metal panels) between boilers 1 and 2 and above motor control center 3 appears to be showing signs of rusting which may lead to further degradation of the decking or damage to structure and equipment below. **DEAO needs to investigate this area for potential leaks and make repairs, as necessary. As of the First Quarter FY26 Walkthrough, the repairs have not been completed.**
- TEG previously discussed with DEAO the depression in the roof membrane near the ladder between cooling towers 6 and 7. The ceiling decking (corrugated metal panels) above the mezzanine level and directly below the depressed spot on the roof is beginning to show signs of oxidation. **DEAO has made repairs to the locations noted and performed more comprehensive repairs to other areas of the roof deck. This item will be removed from future reports.**
- Condensing water pump 2 was spraying water from the inboard packing gland. Calcium or other deposits covered a portion of the adjoining piping and the pump volute. **DEAO needs to make the necessary repairs or adjustments and clean the pump, piping, and area.**
- Insulation was noted as damaged or missing at the following locations: the 150 psig steam line east of the de-aerators, condensate piping south of de-aerator 2, and the softened water line on the mezzanine. **DEAO needs to repair or replace the damaged insulation.**
- The dry wall in the office hallway is damaged in several areas. These areas include at the corner near the breakroom, near the west end of the hallway, and near the copier area. **DEAO needs to repair these damaged areas and repaint. As discussed with DEAO personnel, the corners of the drywall near the breakroom may be covered with a rigid corner guard, such as a stainless steel diamond plate angle, to reinforce these exposed areas.**
- Unused wooden pallets were sitting in the parking lot during the Fourth Quarter FY25 Walkthrough. **These pallets (or new ones) remained sitting in the parking**

lot during the First Quarter FY26 Walkthrough. DEAO needs to remove these pallets.

- Calcium buildup on the condensing water pumps 4 and 5 was noted on the volutes and adjoining piping. The buildup was not present on the other condensing water pumps. **DEAO has cleaned these areas and repainted the pumps and piping, as necessary. This item will be removed from future reports.**
- One of the bumpers and some of the caution tape on the beam flanges located on the south side of the cooling tower deck have become detached from the beams. **DEAO has replaced the bumpers and applied replaced the caution tape. As discussed with DEAO personnel, the tape and bumpers continue to fall off the galvanized beams. A more permanent solution may require painting the beams in a high-visibility yellow or similar color and attaching the bumpers with galvanized bands or wire-ties. DEAO will consult with their safety personnel and discuss their options.**
- DEAO should review the IMaint attachments on the Metro drive and verify the most recent files have been updated so that they can be backed-up. IMaint attachments should be included when available and updated as maintenance items are addressed. Some recent items have been updated over the previous few quarters, but these may not be indicative of the maintenance performed by DEAO. **DEAO has begun including the IMaint backups with many recent files included.**
- **The customer building meter and instrumentation calibrations have been updated and provided to TEG. However, the EGF meter and instrumentation calibrations have not been provided. These calibration reports need to be saved to the Metro drive so they can be backed-up.**
- Other action items previously noted to be addressed by DEAO may have been completed. (See also the “Quarterly EGF Walkthrough Report,” dated September 23, 2025, by TEG for additional information.)

IV. Capital Projects

The Capital Projects discussed in this section are those projects funded through the issuance of bonds by Metro. Costs for these projects will be paid from funds already appropriated. The status of the projects is discussed, and the project cost-to-date and bond balances are also presented.

A. First Quarter FY26 Open Projects

The following projects remained open at the end of the First Quarter FY26.

1. DES163 – New Service to MDHA Parcel K (Peabody Union)

The Peabody Union development includes the construction of Guthrie St that has required modification to the east retaining wall along the EGF property. The installation of this new road will affect the entrance and exit to the EGF site and result in the loss of DES property. This project number is used to track costs and activities associated with the new road, the on-site construction activities by the Peabody Union contractors, and the overall impact on DES.

TEG reviewed the installation of the fencing and work on the DES performed by Peabody Union's contractor (Turner Construction Company) and provided a punch list of incomplete or unacceptable items to Turner and AR Coleman on February 27. A follow-up punch list was issued on June 3, 2025. As of the end of the First Quarter, some punch list items were not completed.

DES believes the poor visibility while entering and exiting the parking lot at the EGF creates a potentially hazardous condition which needs to be addressed by Peabody Union. Communications with NDOT and Peabody Union occurred during the quarter attempting to address this issue. As of the end of the quarter, NDOT installed a roadway sign on Guthrie St marking the entrance of vehicles from the south gate of the parking lot. TEG recommends additional action is necessary to mitigate traffic accidents travelling along Guthrie St, entering, and exiting the EGF parking lot.

2. DES202 – 7th and Commerce Hotel

The developer for the new hotel has reported their project is progressing with financing and the project should be re-starting in the coming quarters.

3. DES203 – Printers and Bankers Alley Building

The engineers for the developer reported the project is moving forward and that chilled water service from DES is included in the design.

4. DES213 – 4th Ave, 7th Ave, and Broadway Tunnel Piping Support Slide Repairs

The piping supports in the three main tunnels (4th Ave, 7th Ave, and Broadway) include slides and guides to allow the piping to move freely due to thermal expansion and contraction in a linear direction with minimal resistance. The slides include Teflon coatings which have been damaged or have become unattached over the years of service. TEG has modeled these supports to determine the resulting forces on the supports based on varying friction factors. As a result of the modeling, TEG determined these slides and guides need to be repaired, restoring the low resistance to thermal movements as originally designed thereby preventing excessive forces on the supports and anchors. This project addresses the replacement or repair of these supports.

TEG conducted a site review to confirm the extent of the work needed; 208 supports were found to be worn or damaged. The design documents for these support modifications were completed during the Fourth Quarter FY24. Due to other project schedules, DEAO has postponed the bidding of this work. TEG agreed to a temporary delay provided the work proceeded in the First Quarter FY26, which did not occur. DEAO has qualified another mechanical contractor and expects to hold a pre-bid meeting early in the Second Quarter FY26.

5. DES217 – Auto Nashville Hotel, LLC DES Service Connection

A final survey was provided during the quarter, and TEG began working on the pipe routing design. The building's contractor noted a postponement of the building's construction of five to six months. Therefore, the design and construction of the new service will not be required until CY26.

6. DES221 – War Memorial Service Modifications

All the work pertaining to DES has been completed at the site. This project is closed.

7. DES222 – Valve Tagging

To facilitate identification of the valves in the EDS, and more efficient tracking of their maintenance, TEG recommended the development of manhole and tunnel drawings to identify all EDS valves and their locations. After discussions with DEAO and the DES liaison, this project was established.

TEG began and completed the development of the valve identification drawings during the Fourth Quarter FY24, and they were transmitted to DEAO. During the Second Quarter FY25, DEAO began tagging the valves. This process will be done over several months. Once this phase is complete, TEG will develop a method to

identify all the buried EDS valves. This project will remain open until the valves have been tagged.

8. DES223 – Manhole 18 Electrical Repair

This project is closed.

9. DES226 – State PRV Replacement

All the work has been completed for the project and is now closed.

10. DES227 – Manhole 16 Condensate Return Piping Replacement

This project is closed.

11. DES228 - Manholes B2 and B3 Dripleg Modification

Manholes B2 and B3 were designed and installed in 2003 to serve the Schermerhorn Symphony. The elevation of the driplegs resulted in the drain piping and dripleg cap being close to the manhole floor. Water infiltration has caused the lower piping elements to corrode. TEG recommended the “shortening” of these driplegs to reduce their exposure to accumulated groundwater. The modification of these driplegs was scheduled to take place during a planned outage sometime in calendar year 2025. However, due to an in-building steam leak nearby, the modification of Manhole B3’s dripleg was completed during the Second Quarter FY25. Portions of Manhole B2’s dripleg modifications have been prefabricated to have on hand in case an emergency outage is needed due to a steam leak resulting from corrosion. Manhole B2’s dripleg will be modified during a planned steam outage scheduled for August 10, 2025.

Additional dripleg modifications in Manholes B6 and B8 have been added to this project along with the addition of a steam isolation valve in Manhole B.

This work was completed during the First Quarter FY26 and is now awaiting the review of the costs. This project will remain open until the invoicing phase is complete.

12. DES229 – Miscellaneous Manhole Insulation Repairs

Several manholes in the EDS need insulation repairs to portions of the piping. These Manholes include: 6, 10, 11, 12, 15, 18A, B6, B7, D, K, L, and Viridian. This project addresses these needs.

Insulation repairs were completed in several of the listed manholes during the Third and Fourth Quarters FY25. However, the insulation repairs in Manhole 6 were delayed due to a valve needing replacement and relocation (included in DES230).

Therefore, Manhole 6's insulation repairs will not be completed until this valve work is complete and the piping is re-insulated.

13. DES230 – Manhole 6A Investigation

Manhole 6A consists of two separate manholes which house the Hermitage Hotel's service valves for chilled water (first manhole) and steam/condensate (second manhole). Each of these manholes have only one manway and the floors are dirt. Because each manhole only has one manway, if maintenance personnel need to access either manhole, ventilation ducting must be introduced through this single manway which can be a safety hazard with the elevated ambient temperature of the steam manhole heightening the safety risk. Additionally, the steam service valve is not operational and needs replacement.

Hermitage Hotel personnel have made changes in their mechanical space during the quarter, which has improved the access to the DES instruments. DEAO remains tasked with modifying the gear boxes on the two DES chilled water valves to make their operation more accessible.

The steam and condensate return service to the Hermitage Hotel can be isolated in Manholes 6 and 23. However, the condensate return service isolation valve in Manhole 6 is corroded and needed replacement. This valve was replaced during the First Quarter FY26.

Once the hotel has made modifications to its mechanical room, a decision regarding Manhole 6A will be made.

14. DES231 – Tennessee Tower Service Piping Relocation

The DES service piping to the Tennessee Tower passes through the State's Gold Parking Lot adjacent to the tower. The State of Tennessee unknowingly located a new back-up generator over top of a portion of these service lines. To ensure accessibility to this piping for future maintenance or replacement, the State asked DES to relocate a portion of these service lines such that none of the piping is underneath this generator.

The State has agreed to reimburse Metro for the costs of relocating these lines.

Bids were received for this work during the Third Quarter FY25, and documentation was forwarded to the State, with a recommendation for review. The State agreed with the recommendation and site work is scheduled to begin July 28, 2025. The steam piping and condensate piping work was completed during the First Quarter FY26. The chilled water piping relocation work is scheduled for October 31, November 1 and 2, 2025.

15. DES233 – Manhole 12 to Manhole 15 Hotspot Investigation

Water intrusion into Manhole 15 increased dramatically during the Second Quarter FY25, and the water's temperature was unacceptably hot. TEG directed DEAO to schedule a thermographic scan of the area around Manhole 15. This scan was conducted and indicated that a hot spot existed east of Manhole 15, between Manhole 12 and Manhole 15. TEG directed DEAO to hire an excavation contractor to excavate the hot spot. This revealed a leak in the condensate return piping. TEG developed a design for the replacement of this piping.

The replacement of this piping and site restoration was completed during the Third Quarter FY25. The manhole wall penetration sealing in Manhole 15 and Manhole 12 was completed during the Fourth Quarter FY25.

This project is in close-out awaiting cost substantiation information from the contractor. DEAO has contacted the contractor to retrieve this information on several occasions to no avail. Recently, DEAO contacted someone in the executive level of the contracting company and DEAO has been assured that this information is forthcoming.

16. DES236 – 3rd Ave Condensate Return Replacement

Because of the condensate piping leaks/failures associated with DES235, this project was initiated to replace the remainder of the uninsulated “gas wrap” piping that was installed in 2003. The scope will include the portion of 3rd Ave North from Deaderick Street to a point just north of James Robertson Parkway.

TEG prepared construction documents based upon the installation of Metro-furnished pre-insulated piping and this work was bid. None of the bidders could begin the project work in a timely manner, therefore TEG decided to postpone the project until the spring of 2026. However, TDOT began re-paving James Robertson Parkway at the 3rd Avenue North intersection, and a condensate leak was uncovered in this process. TEG spoke with TDOT and explained that DES needed to replace the condensate piping crossing James Robertson at 3rd Avenue and did not want to excavate the new pavement about to be placed. TDOT was cooperative and gave DES a three-week window to replace the condensate piping in this intersection. Fortunately, a contractor that has done work on the EDS was able to quickly respond and begin the piping replacement. This piping in this intersection was replaced during September.

The remaining portion of this work will be bid either late during the Second Quarter FY26 or early in the Third Quarter FY26 with the work expected to take place late in the Third Quarter.

17. DES237 – DDC (formerly CJC) Area Chilled Water Leak

A major chilled water leak occurred early in April 2025. The leak was repaired during the Fourth Quarter FY25. New isolation valves were installed because the existing valves did not close adequately.

NDOT required the milling and paving of portions of 3rd Avenue North because of this excavation and the excavation work associated with DES235. Paving was completed during the First Quarter FY26. This project is in close-out.

18. DES238 – Leak at Indigo Hotel

DES steam, condensate, and chilled water service piping passes through the Indigo Hotel basement to serve the Bobby Hotel. DEAO was contacted by the maintenance supervisor at the Indigo Hotel about water leaking into their basement at the southern wall penetration. Initially, samples were taken of the water which did not test positive for condensate. After some investigation, it was determined that the leaking water was condensate. Excavation was started in Printers Alley at the wall penetration location during the first part of the Second Quarter FY26.

This project is ongoing.

19. DES-239 – Manhole S4A Steam Leak

During its regular inspections, DEAO discovered a steam leak on the trap piping in Manhole S4A. The steam service to the War Memorial was isolated and DEAO, TEG and a contractor met on site to review the problem and develop a solution. A solution was developed to replace portions of the piping. This work began during the First Quarter FY26 and is expected to be completed early in the Second Quarter FY26.

B. First Quarter FY26 Closed Projects

DES221, DES 223, DES226 and DES 227 were closed during the First Quarter.

DES233 and DES237 are in close-out.

C. Capital Projects Budget

The following table summarizes the costs and remaining balance of the DES capital projects based on reported expenditures to date. Open projects or completed projects that require some additional management efforts are shown. Projects discussed in this report that are not listed did not have any expenses during the quarter. Total costs for projects that are closed are shown with a gray highlight. Only the funds currently available are shown. All the projects closed during FY25 and in the First Quarter FY26 may not be noted due to outstanding invoices from the contractors.

Table 6. Capital Projects Expense Summary

DES Project #	Description	Total Budget	FY26 Spending to Date	Total Spent to Date	Remaining Balance
Fund-49116					
DES163	Parcel K Service	\$ 1,018,802	\$ 628	\$ 114,827	\$ 903,974
DES202	Service to 7th and Commerce	\$ 1,630,000	\$ -	\$ 44,841	\$ 1,585,159
DES203	Service to Printer's Alley Residential	\$ 850,000	\$ -	\$ 1,675	\$ 848,325
DES213	Tunnel Support Repair	\$ 321,500	\$ 1,333	\$ 50,603	\$ 270,897
DES217	DES Service to AutoNashville Hotel, LLC	\$ 3,079,000	\$ 25,284	\$ 56,050	\$ 3,022,950
DES220	MH20 Cond Repair & Grating	\$ 51,700	\$ -	\$ 20,663	\$ 31,037
DES221	WM/LP Service Modifications	\$ 160,000	\$ 171	\$ 57,035	\$ 102,965
DES222	EDS Tagging Program	\$ 44,000	\$ 1,144	\$ 33,048	\$ 10,952
DES223	MH-18 Electrical Repair	\$ 121,000	\$ 61	\$ 8,301	\$ 112,699
DES225	1st Ave and Molloy Hot Spot	\$ 330,000	\$ -	\$ 277,385	\$ 52,615
DES226	State PRV Replacement	\$ 110,000	\$ 1,021	\$ 40,535	\$ 69,465
DES227	MH-16 CND Line	\$ 55,000	\$ 114	\$ 14,060	\$ 40,940
DES228	MH-B2 & B3 Dripleg Mod	\$ 82,500	\$ 5,741	\$ 15,243	\$ 67,257
DES229	MH Insulation Repair	\$ 75,000	\$ 1,231	\$ 4,816	\$ 70,184
DES230	MH 6A Evaluation	\$ 404,000	\$ 1,324	\$ 14,170	\$ 389,830
DES231	TN Tower Service Relocation	\$ 510,000	\$ 17,140	\$ 86,618	\$ 423,382
DES233	MH12 to MH15 Hot Spot	\$ 110,000	\$ -	\$ 12,424	\$ 97,576
DES236	3rd Ave Condensate Replacement	\$ 1,100,000	\$ 16,404	\$ 27,144	\$ 1,072,856
DES237	3rd Ave Chilled Water Leak	\$ 375,000	\$ 409	\$ 272,449	\$ 102,551
DES238	Indigo Hotel Exploratory Excavation	\$ 110,000	\$ 3,077	\$ 3,077	\$ 106,923
DES239	MHS4A Steam Leak	\$ 110,000	\$ 2,433	\$ 2,433	\$ 107,567
Total Closed Projects		\$ 6,820,370	\$ -	\$ 6,820,370	\$ -
Metro Project Admin		\$ -	\$ -	\$ -	\$ -
Project Man, Development, etc		\$ 8,532,128	\$ -	\$ -	\$ 8,532,128
Fund Total		\$ 26,000,000	\$ 77,516	\$ 7,977,766	\$ 18,022,234

V. Energy Distribution System Repairs, Improvements, PM, and Emergencies

Several EDS repairs and improvements were made during the First Quarter. The principal items for discussion are presented in the following sections.

A. Repairs and Improvements

Several repairs were made to the EDS and at customer buildings during the quarter. The remaining value of the R&I account to date is \$53,859. Table 7 provides a summary of the FY26 expenditures and revenues to date associated with the R&I budget.

Table 7. FY26 Repair and Improvement Expenditure and Revenue Summary

Description	Date	Tracking #	Vendor	Expenditure	Transfers	Balance
Value at end of FY25				\$ 344,386.72		\$ 55,336.81
Interest	7/1/2025	-	-	\$ 982.60		
Interest	7/1/2025	-	-	\$ (982.60)		
DES-238 Indigo Hotel Exploratory Excavation	8/26/2025	-	DEAO	\$ 2,800.00		
DES-219 7th Ave Tunnel Repairs	8/26/2025	-	DEAO	\$ 19,277.21		
DES-223 MH18 Electrical Repair	8/26/2025	-	DEAO	\$ 66,551.93		
July 2025 EDS R&I	8/26/2025	-	DEAO	\$ 14,662.23		
Interest	8/1/2025	-	-	\$ 1,108.49		
Interest	8/1/2025	-	-	\$ (1,108.49)		
DES-226 State PRV	9/22/2025	-	DEAO	\$ 27,372.00		
DES-227 MH-16 Condensate Piping Replacement	9/22/2025	-	DEAO	\$ 8,896.00		
DES-228 - MH B2 and MH B3 Drip Leg Modification	9/22/2025	-	DEAO	\$ 6,640.97		
DES-237 - CJC Area Chilled Water Leak	9/22/2025	-	DEAO	\$ 47,087.04		
Aug 2025 EDS R&I	9/22/2025	-	DEAO	\$ 523.88		
DES-236 3rd Ave Condensate Line Replacement	10/20/2025	-	DEAO	\$ 3,198.15		
DES-237 - CJC Area Chilled Water Leak	10/20/2025	-	DEAO	\$ 57,600.00		
Sept 2025 EDS R&I	10/20/2025	-	DEAO	\$ 1,402.03		
Sub-Total First Quarter				\$ 256,011.44	\$ 190,899.99	\$ (9,774.64)
Sub-Total Second Quarter				\$ -	\$ 63,633.33	\$ 53,858.69
Sub-Total Third Quarter				\$ -	\$ -	\$ 53,858.69
Sub-Total Fourth Quarter				\$ -	\$ -	\$ 53,858.69
FY26 Year to Date				\$ 256,011.44	\$ 254,533.32	\$ 53,858.69

Included within the costs listed above DEAO performs regular maintenance of the EDS and occasional maintenance at customer buildings. The material costs, equipment rental, and overtime labor costs realized by DEAO for these efforts are reimbursable by Metro. Each month DEAO invoices Metro for these R&I expenses. The total for these reimbursable expenses is \$16,588 for FY26. An annual credit limit of \$20,000 for such work was included as part of the Amendment 3 of the ARMA. Of this total, only \$8,000 has been credited in the First Quarter. Additional project costs are also included in Table 7, which are not part of this total but are reimbursable by Metro.

B. Preventive Maintenance

Preventive maintenance, tunnel and manhole inspections and reviews of customers' mechanical rooms were performed during the quarter. The principal items for discussion are presented.

1. EDS Manhole/Tunnel Inspections
 - a. The monthly vault and tunnel reviews were conducted as scheduled.
 - b. The monthly thermographic scans were performed.
 - c. DEAO continues to replace trap assemblies within the EDS as needed and any removed or damaged insulation should be repaired or replaced after the trap is replaced. This insulation repair or replacement has not been taking place in some instances, and the insulation of these traps are now included in DES229.
 - d. DEAO should continue to clean areas of minor corrosion and then paint those areas with cold galvanizing paint. If maintained, this should help reduce or slow down the progression of some areas of corrosion.
 - e. Additional action items and maintenance issues are discussed in the EDS Walkthrough section of this report.
2. Water chemistry samples at customer buildings were taken as scheduled.
3. DEAO continues to perform thermographic surveys of the EDS each month.
4. Recent projects and repairs have required the isolation of specific sections of the EDS. The repairs have involved chilled water, steam, and condensate return systems. In several of these instances, the isolation valves unexpectedly did not close adequately. Additional isolation valves upstream of the project and repair area had to be closed to perform the work needed. This situation resulted in requiring isolation of additional customers who would otherwise not have been impacted if adequate isolation could have been achieved as planned. On numerous occasions over the past several years, TEG has directed DEAO to include in their EDS maintenance program the semi-annual exercising and testing of all valves to identify deficiencies. To date, DEAO has not implemented such a program nor included any regular maintenance inspection of valves in their CMMS. Based upon recent attempts to isolate portions of the EDS, TEG has directed DEAO to identify all valves within the EDS that either do not function properly or do not adequately isolate and therefore, need maintenance, repair, or replacement. Once this task is complete, TEG will coordinate with DEAO and develop a comprehensive maintenance, repair, and replacement plan for deficient valves.

DEAO reports their total cost for maintenance in the EDS in their monthly reports. These costs include the non-reimbursable expenses and the reimbursable expenses shown in Table 7. DEAO's total reported costs are shown in Table 8.

Table 8. DEAO Annual EDS Maintenance and PM Reported Costs

Month	Maintenance	Preventive Maintenance
July-25	\$17,925	\$9,112
Aug-25	\$23,566	\$10,791
Sept-25	\$21,708	\$13,921
Annual Totals	\$63,200	\$33,824

C. Emergencies

There were no emergencies during the quarter.

D. EDS Walkthrough

The First Quarter FY26 walkthrough was conducted on September 4-5, 2025. The manholes that were visited included Manholes 2, 3, 4, 5, 6, 9, 10, 11, 12, 13, 15, 20, 22B, C, D, D1 and U.

Most of the manholes reviewed this quarter have steel piping supports which have been part of our ongoing effort to remediate, repair, and prevent corrosion and have been cleaned and coated as a part of this effort. It is important that these supports be monitored closely by DEAO, and any degradation observed be reported immediately to TEG and repairs made quickly. This should result in instances of corrosion being addressed at minimal cost to Metro.

There is an action item list included at the end of the Quarterly EDS Walkthrough Report which identifies nineteen (19) high priority items and two (2) critical items that need to be addressed by DEAO, seven (7) of which have been reported multiple times.

1. Manhole 2
 - a. There was water in this manhole which required pumping before entry.
 - b. There was some mud in this manhole. DEAO should remove the mud as soon as possible.
 - c. A concrete patching material was applied to several small areas on the walls and ceiling. Some of these patches are beginning to experience flaking.

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- DEAO personnel should monitor these patched areas and notify TEG if the deterioration progresses.
- d. The concrete patch material on one of the areas in the ceiling (mentioned in item 1.c. above) has failed. DEAO should have Enecon chip away the concrete around the exposed rebar to 1" below the surface, clean the rebar, coat the rebar with Enecon Chemclad GP, and patch the area with Enecon Duraquartz. **This item appeared in last year's report.**
 - e. The grout that Enecon installed around the perimeter of the steam end-can wall penetration has cracked and fallen away, probably due to thermal movement of the end-can. DEAO should chip away the remaining grout on the end-can perimeter and install high temperature caulk (RectorSeal Red Silicone Caulk available at Home Depot) around the perimeter of the end-can. **This item appeared in last year's report.**
 - f. The steam and condensate return piping originally passed through this vault going east to Manhole 1 (abandoned) and there were service lines going south to the Washington Square area. All these wall penetrations are capped. These capped penetrations (wall sleeve and link seals) are deteriorating, and it is likely that groundwater will start seeping through them in the future. These penetrations should be sealed with concrete. TEG will prioritize this with other EDS projects and develop a scope to remove the capped piping and end-cans and seal these openings. Meanwhile, DEAO should continue to monitor these penetrations and report any changes to TEG.
 - g. DEAO should investigate if the trap in this manhole is functioning properly. If the trap is not functioning properly, DEAO should repair or replace the trap as soon as possible.
2. Manhole 3
- a. There was water in this manhole, and it required pumping before entry.
 - b. The hairline crack in the western concrete wall noted in prior reports has progressed. DEAO should retain Enecon to chip away any loose concrete along this crack and fill/patch it with Duraquartz.
 - c. The steel piping supports, and the entry ladder were cleaned and coated within the last 1-1/2 years and are in satisfactory condition. DEAO should continue to monitor the steel within this manhole and wire brush/cold galvanize paint the structures as needed.
3. Manhole 4
- a. There was water in this manhole, and it required pumping before entry.
 - b. On 8/22/24, Enecon made needed repairs to the entry ladder coating. This coating is failing. DEAO should replace this ladder with an aluminum ladder under their Amendment 2/3 obligation as soon as possible.
 - c. The abandoned condensate trap piping from Manhole 4 into 401 Union's basement is stubbed into Manhole 4 and is open ended. Steam vapor is entering Manhole 4 through this abandoned trap piping from 401 Union's flash tank vent. DEAO should contact a representative with 401 Union St.

and set-up a time for DEAO and TEG to review the basement piping and discuss cutting and capping this vent piping in the building. The humidity being introduced into Manhole 4 is causing accelerated corrosion in this manhole – this needs to be addressed ASAP. **This item appeared in last year's report.**

4. Manhole 5
 - a. There was water in this manhole, and it required pumping prior to entry.
 - b. A 6" condensate valve in this manhole appears to have an extremely small pin hole leak in the valve bonnet. Because the leak is extremely small, it does not warrant the immediate scheduling of a repair. If warranted, grinding out and welding this pin hole should resolve this issue. DEAO should monitor this notify TEG immediately if the magnitude of this leak increases.
5. Manhole 6
 - a. There was water in this manhole, and it required pumping before entry.
 - b. There are some holes and cracks in the concrete surfaces in this manhole which DEAO should continue to monitor and report any deterioration to TEG.
 - c. The Enecon coating on the edges of the steam piping anchor ceiling plate is failing. There is also a small spot on the C channel condensate slip joint support that needs to be re-coated. These components were cleaned and coated by Enecon in February 2024. DEAO should schedule Enecon to review/repair this as soon as possible.
 - d. The condensate piping valve was recently replaced and re-located in this manhole with a new piping configuration. Now that this work is complete, DEAO should obtain quotes for re-insulating this piping along with re-insulating the absent dripleg and trap piping insulation.
6. Manhole 9
 - a. This manhole had a small amount of water in it because the existing sump/float combination will not allow the pump to remove all the water.
 - b. There is water leaking around the western city water penetration. The water is not hot, but it is not clear if this is groundwater, city water, or water from the area irrigation system. This wall penetration was recently sealed by Enecon with their hydraulic cement; therefore, the path of this infiltration is not clear. DEAO should have Enecon review this as soon as possible.
 - c. The structural pipe supports/anchors in this manhole were initially cleaned and coated by Enecon in June 2020. Since then, Enecon has re-visited this manhole to repair coating failures on at least one occasion. Once again, the coating is failing in some locations: 1) the south side of the western large beam column, and 2) the base of the small eastern beam column. DEAO should have Enecon clean and repair these locations as soon as possible.
 - d. There is hot water dripping from the underside of the concrete opening which was cut into the northern wall of the original manhole. A crack in

the underside of this cut opening was sealed by a contractor in early 2018. DEAO should continue to monitor these sealed cracks and water infiltration and report any significant changes to TEG immediately.

- e. Concrete has spalled from the surface of the lower eastern area of the concrete opening mentioned in the item above. DEAO should have Enecon chip away the concrete around the exposed rebar (create a 1" gap on the backside and sides of the exposed rebar, clean and coat the rebar and then patch the spalled area to fill the concrete back to the faces of the concrete surfaces.

7. Manhole 10

- a. There was a small amount of water present in this manhole which the manhole sump pump cannot pump out due to the slope of the manhole floor.
- b. This manhole is always hot which is indicative of groundwater accumulation around the exterior of the manhole.
- c. The condensate anchor was initially cleaned and coated by Enecon in November 2021. Since then, Enecon has made repairs to this anchor on at least one occasion. Once again, there is place near the base which has cracked. DEAO should have Enecon review and repair this as soon as possible.
- d. A new insulation blanket has been installed on the condensate piping valve at the western wall however the blanket did not fit properly. The insulation contractor is awaiting a replacement blanket from the manufacturer.
- e. A portion of the condensate piping in this manhole had to be replaced due to corrosion. This work was just completed prior to this review, and the new piping has not been re-insulated. DEAO should ensure that this repaired piping is re-insulated as soon as possible.
- f. The bottom of the rebar chairs are visible in the manhole ceiling and show signs of corrosion. DEAO should have Enecon chip the concrete away from around these chair feet, clean and coat the feet and then patch the concrete.
- g. The electrical enclosure at the sump pump electrical entrance to the manhole is corroded and should be replaced. DEAO should replace this enclosure within the next 6 to 9 months.

8. Manhole 11

- a. There was water in this manhole, and it required pumping before entry.
- b. The structural pipe supports are in good condition.
- c. Spalling of the manhole roof was repaired in 2018 and appears to still be in satisfactory condition.
- d. The wall penetration end-cans were repaired/replaced under DES-179 and are still in good condition.
- e. The underground steam piping for this section of the EDS was replaced 20 years ago under the previous Project Administrator. When this was done, the routing of the steam through this manhole at the west end of the manhole was reconfigured. This reconfiguration changed the location of the western steam wall penetration. Therefore, a "kicker" was installed which spans the

prior wall opening and is connected to the backside of the steam piping elbow. The area on either side of this kicker beam was then plated to prevent dirt from entering the manhole and to pump grout into the vacant space. These plates appear to have moved or shifted, apparently due to a recent steam system shutdown. DEAO should arrange a time with a contractor to review this manhole with TEG to outline a scope and replace these plates and its anchoring system.

9. Manhole 12
 - a. No water was present in this manhole.
 - b. The structural steel within this manhole was cleaned and coated by Enecon in February 2024. The anchor base plates are experiencing some corrosion along the edges. DEAO should have Enecon revisit this manhole and clean and re-coat these areas.

10. Manhole 13
 - a. No water was present in this manhole.
 - b. The steam piping at the western wall penetration includes an insulation blanket. This blanket has deteriorated. DEAO should remove this blanket and investigate if this section of piping can be successfully field insulated to eliminate this blanket. If not, this insulation blanket should be replaced. The deterioration and loose fit of this blanket contribute to heat loss from the EDS. **This item appeared in the last three reports.**
 - c. There is some water on the manhole floor beneath the chilled water valves at the western wall (Valve Tag Nos. CWS-001 and CWR-001). This may be condensation which indicates that the chilled water valve/pipe should be reinsulated. Or the water could be groundwater seepage from the western wall penetration(s) next to the valves. In either case, the resulting water has probably damaged the pipe insulation, or at a minimum, reduced its insulating ability. DEAO should remove the insulation at the western wall to determine the source of this water. If it is groundwater from the wall penetration(s), DEAO should have Enecon seal the penetration(s) with Encrete WP. If the water is the result of condensation on the chilled water piping/valve(s), DEAO should have the chilled water valves/piping reinsulated and sealed. This should be investigated prior to making the insulation repairs in item b. above. **This item appeared in the last three reports.**
 - d. The northern chilled water valve (Tag No. CWR-001) gearbox is corroded. DEAO has noted that one of these two chilled water valves will not operate. DEAO should verify which valve cannot operate. If it is the northern valve, DEAO should verify if the corroded gearbox is the cause for the malfunction and obtain quotes to replace the gearbox.
 - e. The structural steel within this manhole was cleaned and coated by Enecon and is in good condition.
 - f. The eastern hanger rod for the condensate piping in the low ceiling area of the manhole is broken and needs to be replaced. This hanger rod may not

have been plumbed when it was installed, and the embedment position of this rod may need to be relocated. DEAO should replace this rod as soon as possible. **This item appeared in last year's report.**

11. Manhole 15

- a. The eastern steam piping penetration has backfilled stone coming into the manhole through the annular space between the wall penetration and the penetration sleeve. This is the result of the recent repairs to the condensate return piping between Manholes 12 and 15 (DES-233). DEAO should hire a contractor to pump or pack grout into this annular space. This may require the construction of a form to cover the annular space. This should be done within the next 6 months.
- b. Some of the "openings" in the grating at the top of the 4th Avenue Tunnel vertical shaft are clogged with debris and portions of the grating are corroded and need to be repaired or replaced. DEAO should clear these openings because this is an air intake for the 4th Avenue Tunnel. DEAO should get quotes to have this grating replaced with aluminum grating with 3/16" x 1-1/2" bearing bars spaced at 15/16" O.C. (15-W-4 or 15-S-4 grating); open ends/edges of the grating shall be banded. **This item appeared in last year's report.**

12. Manhole 20

- a. The steam piping southern wall penetration end-can and sleeve are corroded. DEAO should try wire brushing these materials to determine the severity of the corrosion and report to TEG. This end-can may need to be replaced, which will be a challenge due to the poor access in this area.
- b. There is some moisture on the floor underneath the steam penetration. DEAO should monitor this and report any significant changes to TEG.

13. Manhole 22B

- a. This manhole is at the top of a vertical shaft which connects to the 7th Ave Tunnel.
- b. The thermal movement of the steam and condensate piping has created indentions in the insulation jacketing at the penetration of the piping through the floor grating. The difference in thermal movement is due to the new piping being installed in a slightly different position than pipe which was replaced. DEAO should continue to monitor the piping/insulation at the grate penetration and report any significant changes to TEG.
- c. Portions of the grating covering the vertical shaft opening is corroded and should be replaced within the next 9 to 12 months. DEAO should obtain quotes to have this grating replaced with aluminum grating with 3/16" x 1-1/2" bearing bars spaced at 15/16" O.C. (15-W-4 or 15-S-4 grating); open ends/edges of the grating shall be banded.
- d. DES-218 included the placement of hydraulic cement in the piping wall penetrations of this manhole to stop the intrusion of water. Portions of the chilled water piping insulation were removed to accommodate this

installation. This insulation has not been installed, which should have been a part of DES-218. The delay in re-installing this insulation has resulted in surface corrosion on the chilled water piping. DEAO should have this insulation re-installed as soon as possible. **This item appeared in last year's report.**

14. Manhole C

- a. There was water present in this manhole, and it required pumping before entry.
- b. There is some mud and debris in the floor of this manhole next to the entry ladder. It appears that when the roadway was re-paved, the re-paving contractor pushed this debris into the entry manway. The bus station's agent was pressing DEAO personnel to complete this review as quickly as possible to avoid conflict with bus traffic. DEAO should clean this debris during a subsequent visit.
- c. The insulation blankets in this manhole have deteriorated. DEAO should obtain quotes to replace these blankets within the next 6 months.
- d. The insulated waterline passing through this manhole was dripping water at the southern end. It is difficult to determine if this water is from the southern wall penetration or not. The insulation jacketing should be removed at this end of the piping and the wall penetration reviewed to determine the origin of this water.

15. Manhole D

- a. Project DES-211 included the cleaning and coating of all the support steel in this manhole in June 2024. Recently, there were several areas which this coating had failed and Enecon re-visited this manhole and cleaned and re-coated these areas. DEAO should monitor this coating and report any deterioration to TEG immediately.
- b. A painted steel electrical enclosure mounted on the northern wall appears to house the sump pump level controller. This enclosure is badly corroded and requires replacement with a 316 stainless steel NEMA 4X enclosure. This enclosure should be replaced as soon as possible. **This item appeared in the last two years' reports.**
- c. The southern steam piping penetration end-can is corroded and in poor condition. TEG will develop drawings to replace this end-can assembly and provide them to DEAO to execute.
- d. The sump pump discharge includes copper tubing which transitions to steel piping before exiting the manhole. The steel piping has surface corrosion that needs to be cleaned and coated to prevent the corrosion from advancing. It is unclear why this corrosion exists. Copper and steel are fairly compatible metals, however if the steel piping was galvanized, zinc and copper are not very compatible. The existing coupling connection may not be a dielectric coupling. Therefore, in addition to cleaning the corrosion and coating the pipe, DEAO should separate the piping at the coupling to determine if it is a dielectric coupling. If it is not, DEAO should install a dielectric coupling.

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16. Manhole D1
 - a. This manhole houses two sump pumps that help prevent groundwater (underground stream?) from entering Manhole D nearby.
 - b. No deficiencies noted.
 17. Manhole U
 - a. There was a small amount of water present in this manhole, but it did not require pumping.
 - b. Because of groundwater infiltration into this manhole, secondary steam results and the roadway area above this manhole remains warm. In the past, this heat has caused settlement and some depression of the asphalt above the manways and could result in damage to one, or both, of the manway lids/frames. DEAO should continue to monitor this condition and report any significant changes to TEG.
 - c. The condensate return piping that passes through this manhole began leaking several years ago and a repair clamp was installed. This repair clamp was not leaking during this review. DEAO should continue to monitor this and report any leaks/changes to TEG.

VI. Customer Relations

This section contains descriptions of the marketing efforts made by the DES Team during the quarter and prominent existing customer interactions. The topics of interactions, meetings and training seminars with the customers are also discussed. There are currently 22 customers, comprised of 43 different buildings (including the Auto Nashville Hotel) connected to the EDS. Service to each of these buildings continues to prove satisfactory, and the responsiveness to customer issues is managed by DEAO in an expeditious and professional manner.

A. Marketing

TEG continues to research and investigate potential developments along the Peabody St corridor and in the Rolling Mill Hill area and throughout the downtown area. Overall, TEG has contacted or discussed services with eighteen potential new customers. Of these, eight are existing buildings (not new developments) either expanding or renovating their buildings or in need of replacement equipment. Potential service to five of these buildings appears promising as DES provides the greatest financial benefit. Most of the new developments are in the preliminary phases of their projects which delay firm decisions in choosing DES. In addition, TEG continues to follow-up with several other potential customers with whom discussions have continued as they consider service from DES.

The hydraulic model of the system was updated during the quarter to reflect more current chilled water demands from the customers. This analysis was then modified to include known probable and potential customers. With these anticipated new demands, the remaining chilled water capacity will be sold. The prospect of adding plate and frame heat exchangers to several buildings to reduce the hydraulic impact those customers have on the system (known as the Decoupling Project) remains a possibility. However, with the

addition of these customers, implementation of the Decoupling Project will only enable the DES to operate the chilled water system at lower pressures and to dispatch a minor amount of additional chilled water out through the existing distribution system, which will have little impact on the ability to serve additional loads in the near-term.

The loss of Nissan Stadium in FY28 as a customer will allow for additional sales depending on where within the system the potential new customers are located. The loads previously served to the Stadium can be re-allocated to the potential expansion of the Bridgestone Arena, TPAC, or Music City Center if these proposed projects come to fruition.

Otherwise, significant increase in the customer base will require the expansion of new piping within the system and the installation of new capacity at the EGF. Metro has several options for future expansion which include the expansion of services into the Rolling Mill Hill area which can also be interconnected to the existing distribution system north of Korean Veterans Boulevard. Such expansions of the distribution pipe and the addition of equipment at the EGF may not result in an immediate return on capital expenditures. Metro has yet to decide if such expansions would be pursued.

Metro Water Services (MWS) participates on the East Bank coordinating staff, which consists of engineering consultants and representatives from Metro departments associated with development and infrastructure in the city. The Metro Liaison represents DES infrastructure. The Metro Liaison has been actively promoting the use of district energy in the East Bank planning process by identifying synergies with other utilities, transportation, and public recreation agencies. DES continues to pursue options and potential customers on the East Bank.

B. Customer Interaction

DEAO's customer service representative (CSR) had regular communications with the DES customers which often entailed discussions of a technical nature, scheduling outages, and ongoing projects. However, some communication DEAO had with the customers involved minor problems with the customers' heating and cooling systems that are unrelated to DES service. Other more significant issues are summarized herein.

- A water leak was reported at the Indigo Hotel in July. DEAO and TEG investigated the issue and determined the water was caused by a condensate leak on the service lines in the area. The repair work is part of the project DES238.
- TEG's ongoing investigation to the high pressure drop on the chilled water supply piping to the Music City Convention Center resulted in the discovery of a cone strainer just upstream of the DES meter station. Cleaning or removing the strainer is the responsibility of the building. As of the end of the quarter, building personnel have not removed or cleaned the strainer.
- The customer invoices for July 2025 were issued by DEAO with known errors even though they were informed not to issue them until the errors had been corrected. The error resulted in an approximate 3% (\$54,000) overcharge to most of the customers. TEG responded to questions regarding the invoices to a customer during the quarter who questioned the unusually high cost of the invoice. The corrections to the error were not made until August's invoices in which the appropriate credits were issued.
- Personnel from the Cordell Hull building reported a steam leak at their condensate receiver during the quarter. Upon investigation by DEAO, they determined the leak was due to a faulty trap. Building personnel made the necessary repairs in September.
- Metro Courthouse personnel reported a safety relief valve to be lifting periodically. DEAO investigated and determined the issue was with the building's pressure reducing valve. Building personnel made repairs during the quarter.
- Additional communications between DEAO and the DES customers are included in their monthly reports.

VII. Recommendations

DEAO is obligated to meet the standard of good utility practice and performance guarantees as outlined by the ARMA. DEAO continues to improve its operation and has succeeded in meeting most of the guaranteed metrics during the quarter. In TEG's opinion, DEAO needs to continue their efforts to improve the operations of the EGF to meet the performance metrics more consistently. In addition, several outstanding and unaddressed issues noted in the EDS and EGF Walkthrough reports need to be addressed by DEAO, especially the long-outstanding items.

Based on the review of the First Quarter FY26 EGF and EDS operations, the following recommendations are made. Several of the following items have been reported in previous Monitoring Reports and remain unresolved.

- DEAO needs to address the maintenance items included in the EGF and EDS Walkthrough sections of this report as soon as possible.
- DEAO needs to ensure the regular and preventive maintenance plans for the EGF and EDS equipment as recommended by their respective manufacturers and Good Utility Practice are being implemented.
- The inability to properly and sufficiently isolate sections of the EDS results in additional expenses to Metro and requires the isolation of additional customers which would not have otherwise needed to be isolated. To mitigate this problem, DEAO needs to address the maintenance of the distribution valves and identify which valves need repair or replacement.
- The structural steel within vaults and tunnels that has been professionally cleaned and coated should be closely monitored so that if deterioration occurs, it can be addressed quickly and cost effectively.
- Structural steel within the vaults and tunnels that have not been professionally cleaned and coated which exhibit evidence of corrosion should be cleaned and coated by DEAO using cold galvanizing paint to mitigate the progression of corrosion.
- Insulation that is absent or in disrepair in the vaults and tunnels should be repaired or replaced.
- Steam traps which need repair or replacement should be addressed immediately.
- Expansion joint leaks should be repaired by either re-packing the joint or injection of a sealant once the leak(s) is sufficient for the repair to be effective.
- DEAO should continue to remove debris and mud from the tunnels and manholes.