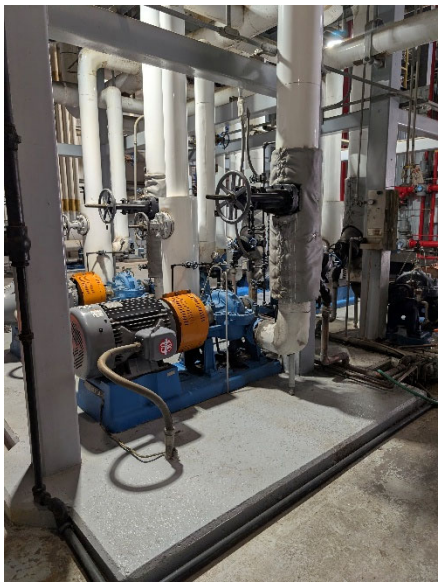
Metro Nashville
DISTRICT ENERGY SYSTEM



Operations Monitoring Report

First Quarter FY27

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October 30, 2026

I. Executive Summary

A review of the fiscal year 2027 (FY27) 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 FY27, DEAO did not meet the performance guarantees for the chilled water-water for August and September, but met the other performance guarantees each month. 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. After tracking the number of chiller and boiler trips for years, 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 plant and reductions in the number of operational trips and performance excursions. DEAO and TEG continue to monitor the efficiency and performance of the DES looking for means of improving the system.

The First Quarter FY27 chilled water sales increased 9.9% compared to the previous First Quarter (FY26) which coincided with an increase in the number of cooling degree days of 9.3%. The chilled water sendout increased 8.3% over the previous First Quarter resulting in a decrease in the system losses. The peak chilled water demand for the current quarter was 18,621 tons, which was 3.5% higher than in the previous First Quarter.

Steam sendout for the current quarter decreased 4.2% over the previous First Quarter with steam sales decreasing 5.7%. Total steam system losses increased marginally from the previous First Quarter. The peak steam demand for the current quarter was 45,400 pounds per hour, which represents a decrease in the previous First Quarter demand of approximately 29.1%. There were no heating degree days for the First Quarter for FY26 and FY27.

Work continued with EDS Projects during the First Quarter. TEG provides development, design, or construction phase services for all customer and EDS related projects. Two projects were closed during the quarter and eighteen (18) remained active. Four of these projects include the expansion of services to new customers. Among the projects, construction began on the service connections to 414 Union St (DES243) with an anticipated completion date in the Second Quarter FY27. Two additional projects involve monitoring and minor administrative duties performed by TEG for DES and may not require construction activities in the immediate future. DEAO remains actively involved with the construction of six projects (DES213, 240, 243, 245, 250 and 252) and provides a role in project administration in three (3) others. TEG remains actively involved in the design, construction, and oversight of all maintenance, improvement, and expansion projects. In total, DES spent $674,978 in the First Quarter total construction costs. However, the issuance of invoices related project work do not follow Metro's fiscal years, therefore, the total cost spent to date this quarter includes invoices for previous projects and project work from FY26 and may lack invoices for FY27 work.

As noted in prior quarterly monitoring reports, several deficiencies remain deferred or postponed in the EGF and EDS which can result in increased maintenance costs to DES.

The current fiscal year operating costs to date are $6,308,942. This value represents approximately 28% of the total budgeted operating cost for FY27. The total system revenues from the sales of steam and chilled water to date are $5,949,508 (27% of budgeted amount) which includes other miscellaneous revenue sources. The annual true-up for FY26 ($21,599) has been completed and included on the September customer invoices. Metro has reported that the Metro Funding Amount (MFA) transfers of $96,250 (25% 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 9.9% increase in sales for the current quarter over the same quarter of the previous fiscal year marked by a 9.3% increase in the number of cooling degree days. These values reflect a growing usage of chilled water within the system even through several buildings have little to no cooling load due to ongoing renovations.

The peak chilled water demand as measured at the EGF for the current quarter was 18,621 tons, which was 3.5% higher than the previous First Quarter. This peak was noted by DEAO as occurring in both July and August based on meter readings at the EGF. However, by comparing the customer meter data, the system simultaneous peak was 17,193 tons which occurred on July 28. The noted difference (1,428 tons) includes some distribution losses but may be largely due to meter error at the EGF. Nonetheless, with several customer buildings under renovation and not experiencing normal chilled water demands, a trend of increasing peak demand suggests expansion of generating equipment at the EGF is warranted once the buildings under renovation return to full capacity and the new customers realize their anticipated demands.

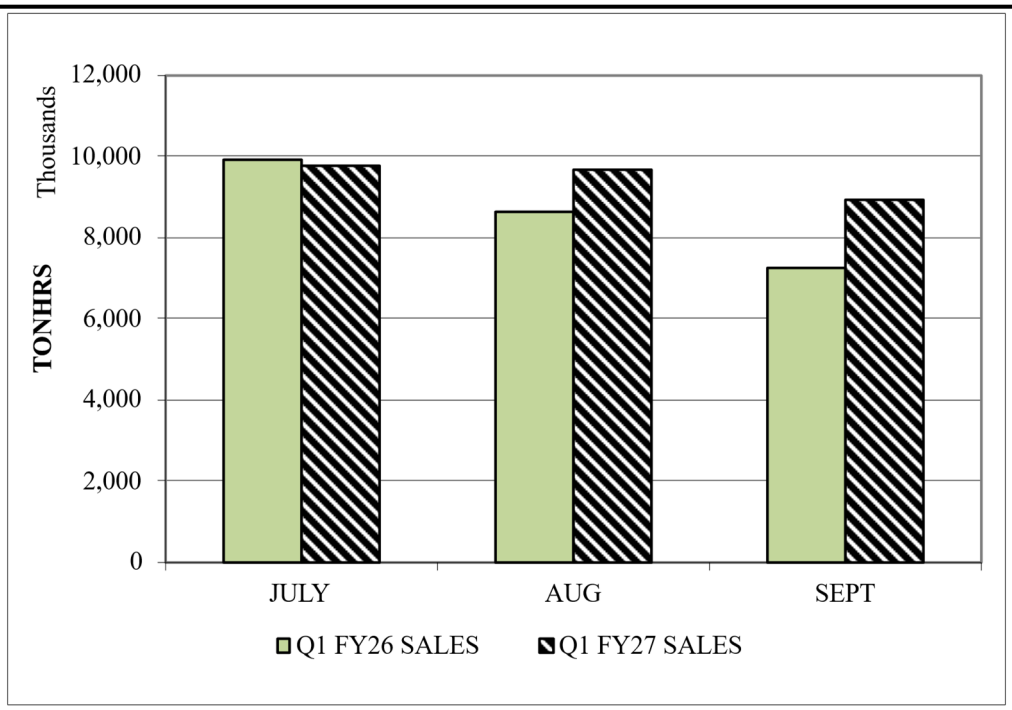


Figure 1. Chilled Water Sales Comparison

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

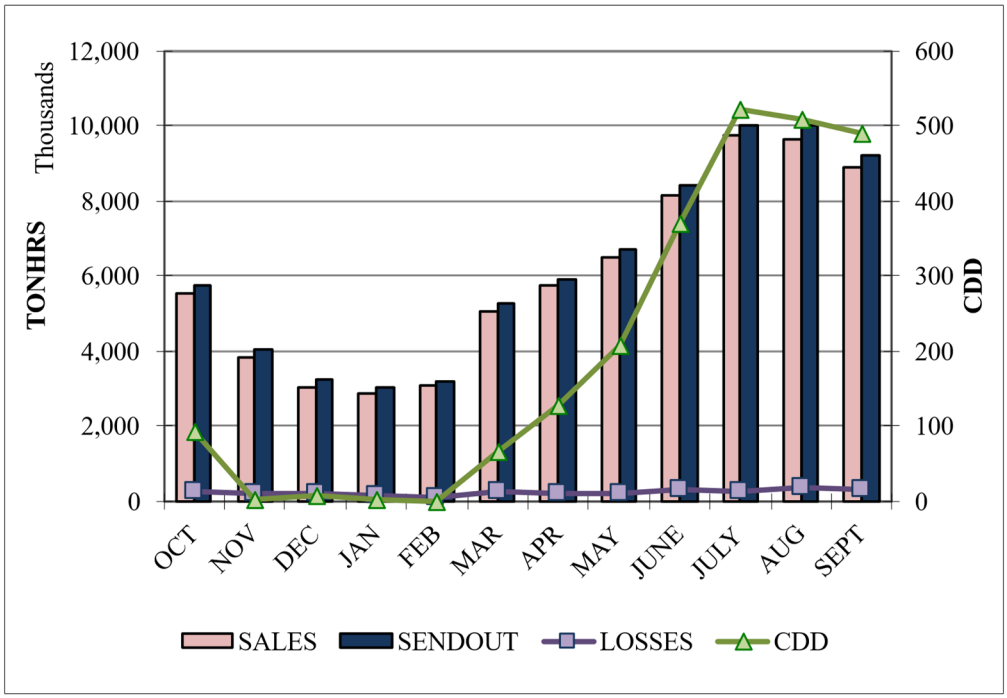


Figure 2. Chilled Water Sales, Sendout, Losses and CDD for the Previous Twelve Months

2. Losses and Water Usage

A comparison of the total chilled water energy losses in the EDS for the First Quarter FY27 is shown in Figure 3. These losses are the difference in chilled water sendout and sales and reflect differences in the meter accuracy between the EGF sendout meter, the customer meters, and any estimated monthly usage for the customers. The losses decreased 24.2% over the previous First Quarter.

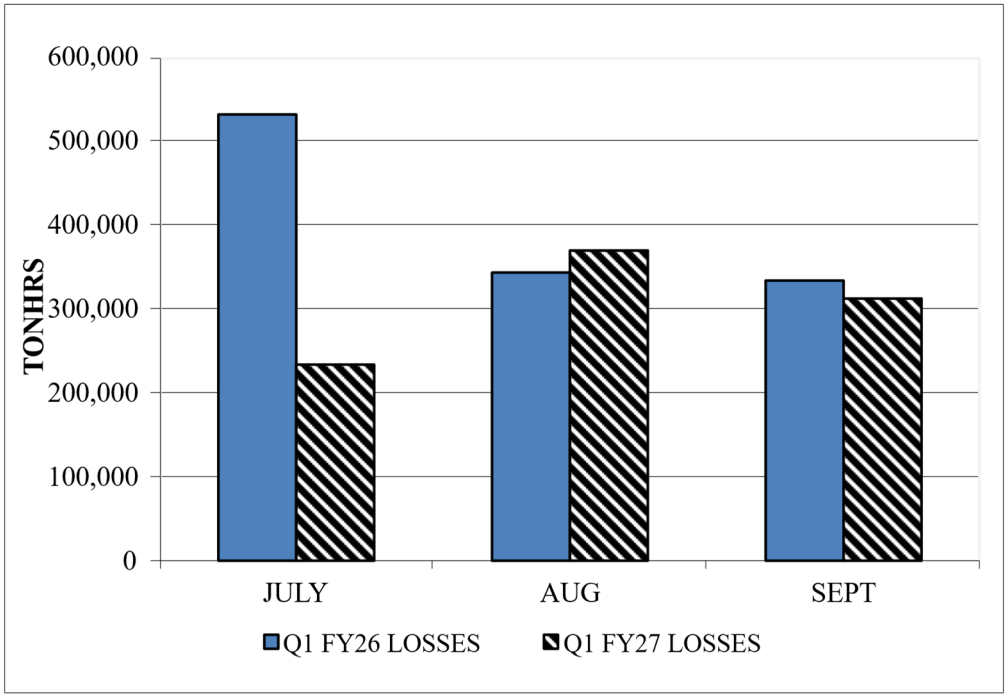


Figure 3. Chilled Water System Loss Comparison

The EDS make-up increased 82.4% over the previous First Quarter. The make-up began increasing in July and continued through the quarter and into October. DEAO and TEG have investigated the increase, and DEAO has contacted customers to determine if any leaks were found at their buildings. This variation may be due to issues at customer buildings, but a leak is suspected but not confirmed on Fifth Ave N. Monitoring of the EDS make-up continues and if the actual location of leaks are discovered, DES will address the issue promptly.

The make-up to the cooling towers increased 9.6% over the previous First Quarter coinciding with only an 8.3% increase in chilled water production. The amount of cooling tower blowdown increased 17.5%. The water usage in the cooling towers is typically proportional to the production of chilled water and should likewise vary with chilled water sales. However, the number of cycles of concentration appear to have decreased indicating on increase in the amount of blowdown. These values all correlate and may indicate an excessive amount of blowdown. The total chiller plant water use increased 10.8% 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.)

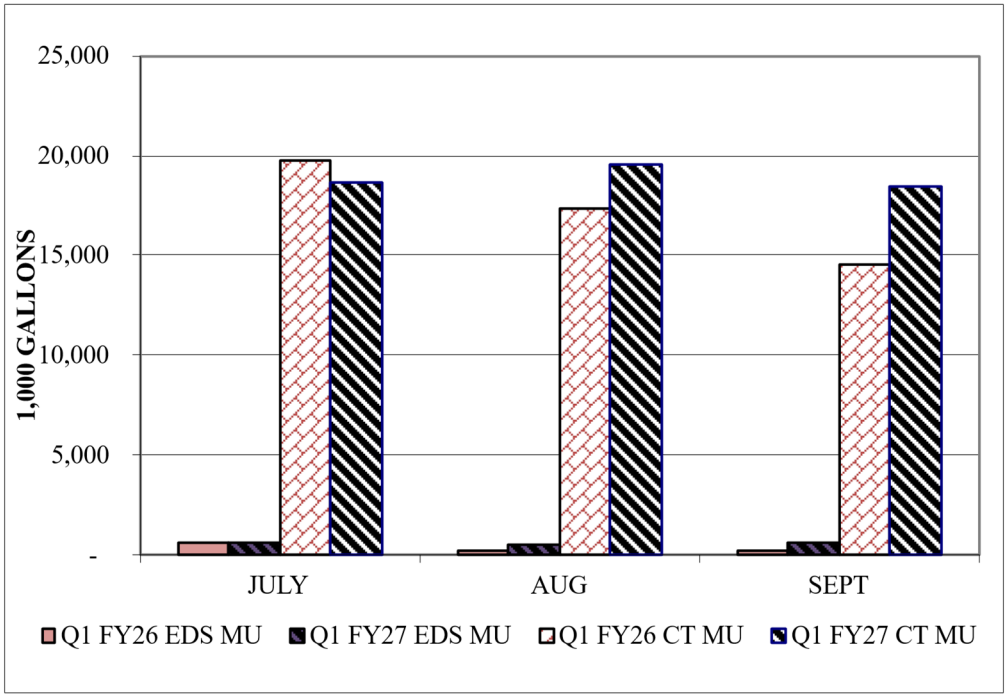


Figure 4. Chilled Water System City Water Usage Comparison

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 FY26 and FY27 are shown in Figure 5.

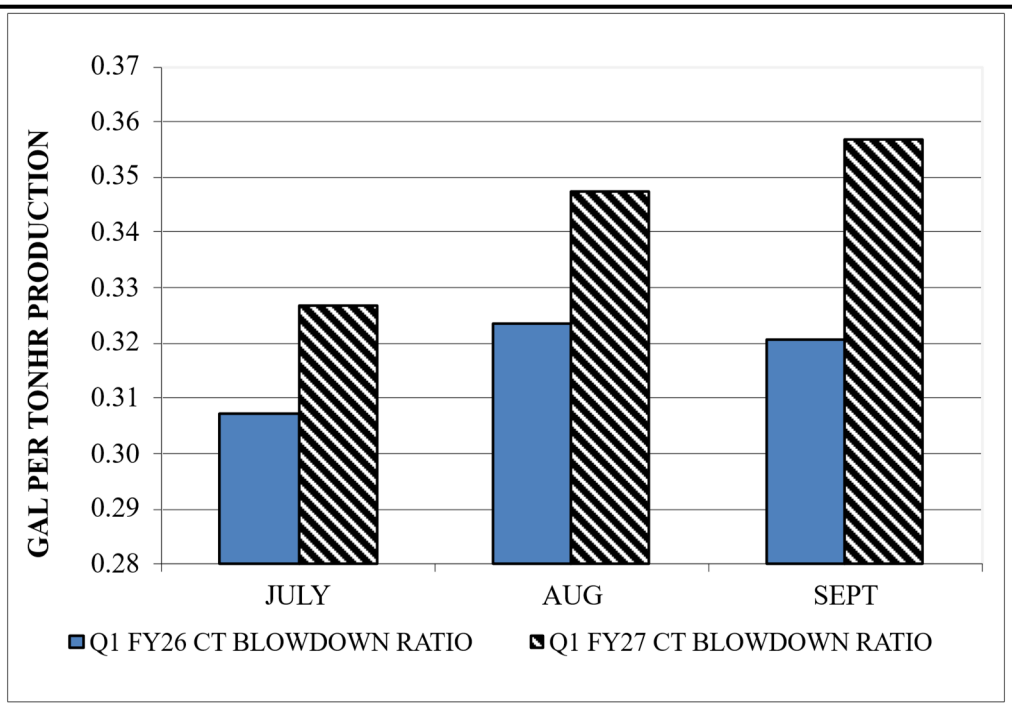


Figure 5. Cooling Tower Blowdown Ratio Comparison

When a comparison is made between the two quarters, the average cooling tower blowdown ratio increased 8.5%. The chilled water-water performance guarantee was not met during August and September but was met in July. Based on previous years' data, cooling tower blowdown ratio values between 0.27 and 0.30 appear to result in more favorable operation and water usage and the chilled water-water performance guarantees are met. Therefore, the increase in the blowdown ratio has resulted in an increase in the EGF water usage and the inability to satisfy the performance guarantee. The cooling tower blowdown ratio metric will continue to be tracked and monitored 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 marginally over the previous First Quarter and the chilled water-electric metric was met each month.

Higher values of the chilled water-electric metric indicate a less efficient operation. The actual performance of the chilled water equipment typically decreases during the warmer months and remains somewhat consistent during the winter months. This phenomenon is directly related to the performance of the cooling towers and the ambient wet bulb temperature. Another factor contributing to the seasonal increase is the temperature difference between the chilled water supply and return. Low temperature differences result in higher relative flow rates and lower chiller efficiencies. However, this temperature difference is typically lower during the winter months where the chiller plant efficiency is more consistent. This phenomenon leads TEG to the conclusion that the source of the inefficiency lies in the cooling tower performance.

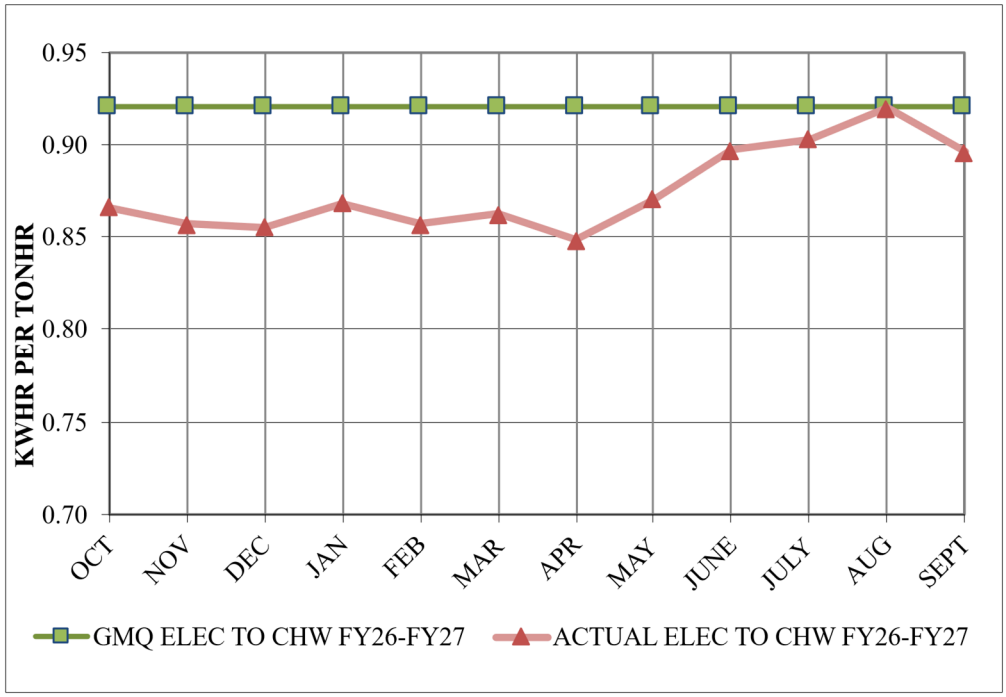


Figure 6. Chiller Plant Electric Performance Guarantee Comparison for the Previous Twelve Months

The total consumption of city water for the chiller plant for the current quarter increased 10.8% over the previous First Quarter marked by increases in the EDS make-up, the cooling tower blowdown, and the side stream filter backwash; the latter of which increased 107.2%.

DEAO did not meet the chilled water-water performance metric in August and September. The average metric for the quarter was approximately the same as in the previous First Quarter. 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.

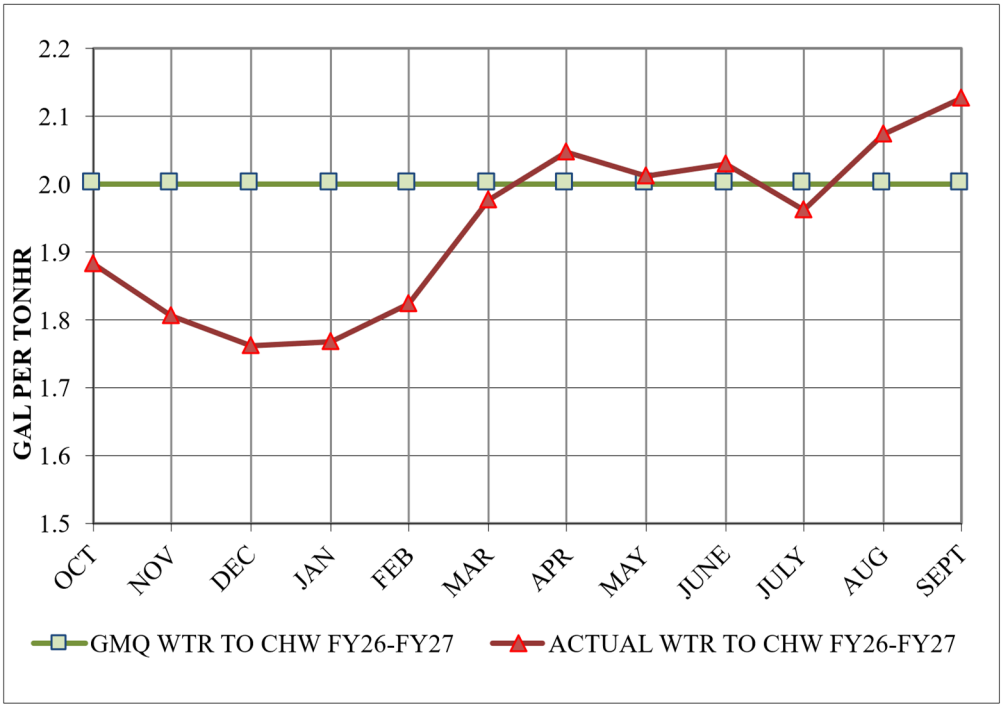


Figure 7. Chiller Plant Water Consumption Performance Guarantee Comparison for the Previous Twelve Months

B. Steam

1. Sales and Sendout

The steam sendout decreased 4.2% over the previous First Quarter, and the sales decreased 5.7%. There were no heating degree days in the First Quarter of FY26 and FY27, which is typical during non-heating months. The relative amount of condensate return increased 1.9% over the previous First Quarter. The peak steam demand for the current quarter was 45,400 pph, which reflects a 29.1% decrease in the peak steam production over the previous First Quarter. The steam losses remained consistent with only a marginal increase in the First Quater FY27. A comparison for the First Quarter steam sales is shown in Figure 8.

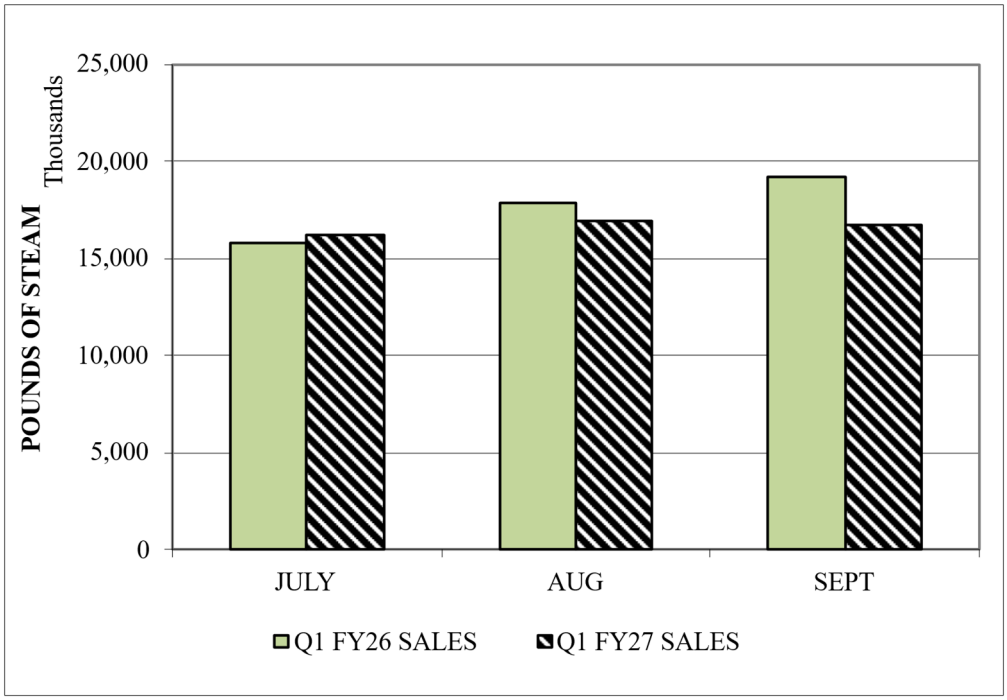


Figure 8. Steam Sales Comparison

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.

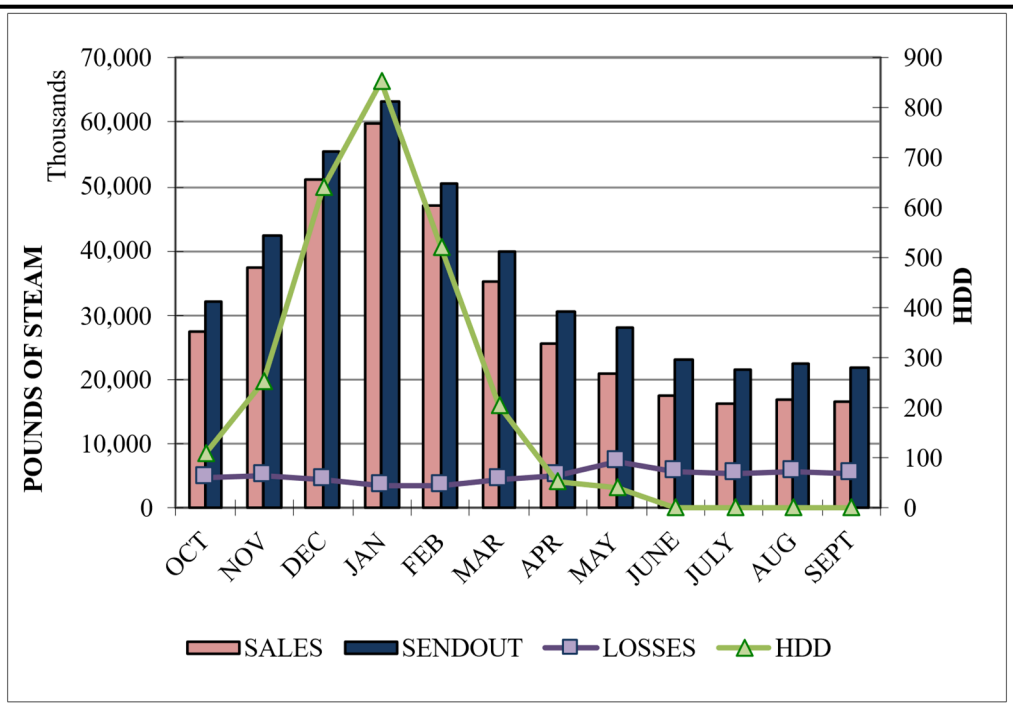


Figure 9. Steam Sales, Sendout, Losses and HDD for the Previous Twelve Months

2. Losses and Water Usage

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. The exact cause of the spike in losses shown in August is unknown but may be attributable to customer meter inaccuracies due to relatively low flow rates.

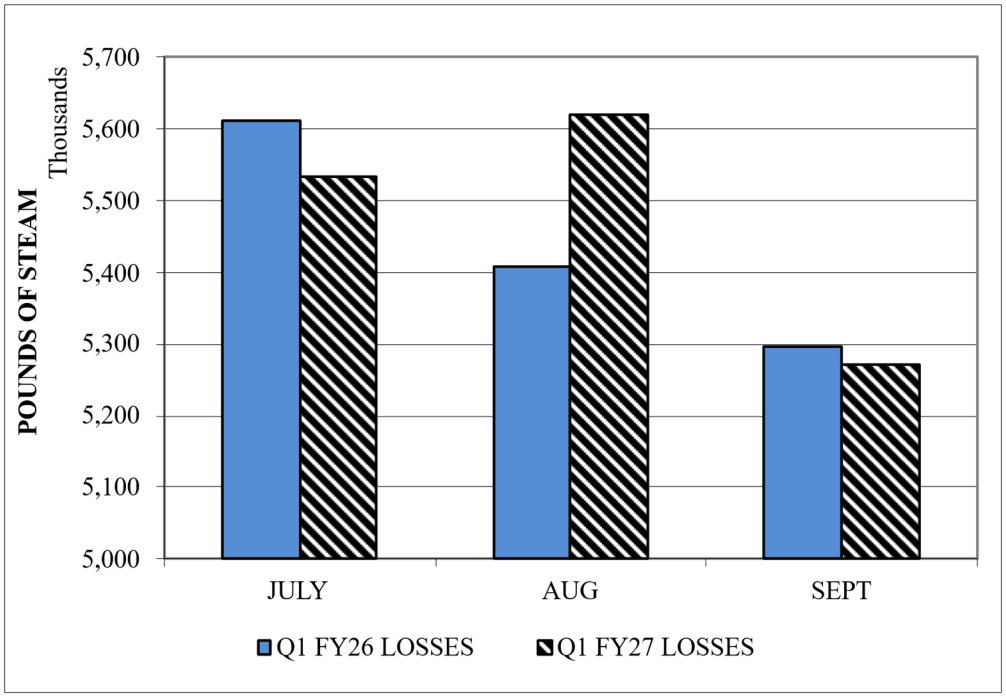


Figure 10. Steam System Losses

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 decreased 7.2% over the First Quarter FY26. The relative amount of condensate return increased 1.9% over the previous First Quarter. As of the date of this report, there are no known condensate leaks in the system. The corresponding data for steam system make-up is shown in the comparison of First Quarter data in Figure 11.

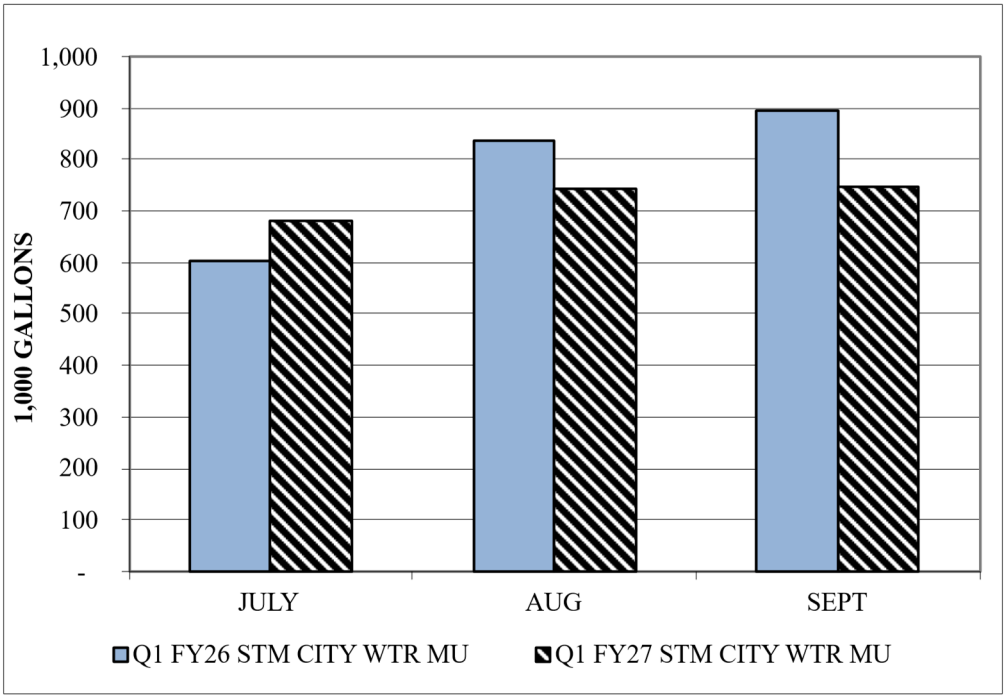


Figure 11. Steam System City Water Make-up Comparison

3. Performance

The performance of the steam system of the EGF is presented in the following three charts, Figures 12, 13, and 14. The steam electric conversion factor was met for each month of the quarter. The steam plant electric consumption for the current quarter was 2.9% higher in the First Quarter FY27 than in the previous First Quarter. The steam-electric metric increased 8.4% over the previous First Quarter indicating a decline in performance.

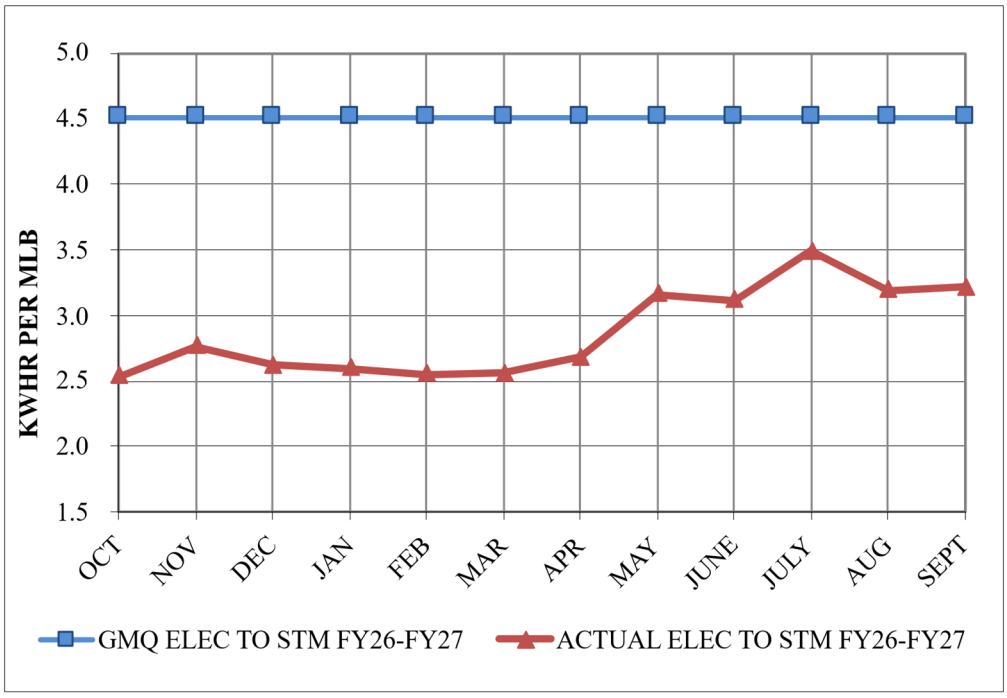


Figure 12. Steam Plant Electric Performance Guarantee for the Previous Twelve Months

For the First Quarter, the boiler plant water usage decreased 7.2%. The steam-water metric was met each month during the quarter. The decrease in water usage is noted by a corresponding increase in the relative amount of condensate return. Higher amounts of condensate return reduce the amount of city water make-up required and improve the overall efficiency of the boiler plant. Figure 13 shows the steam-water metric using new methodology addressed in Amendment 3.

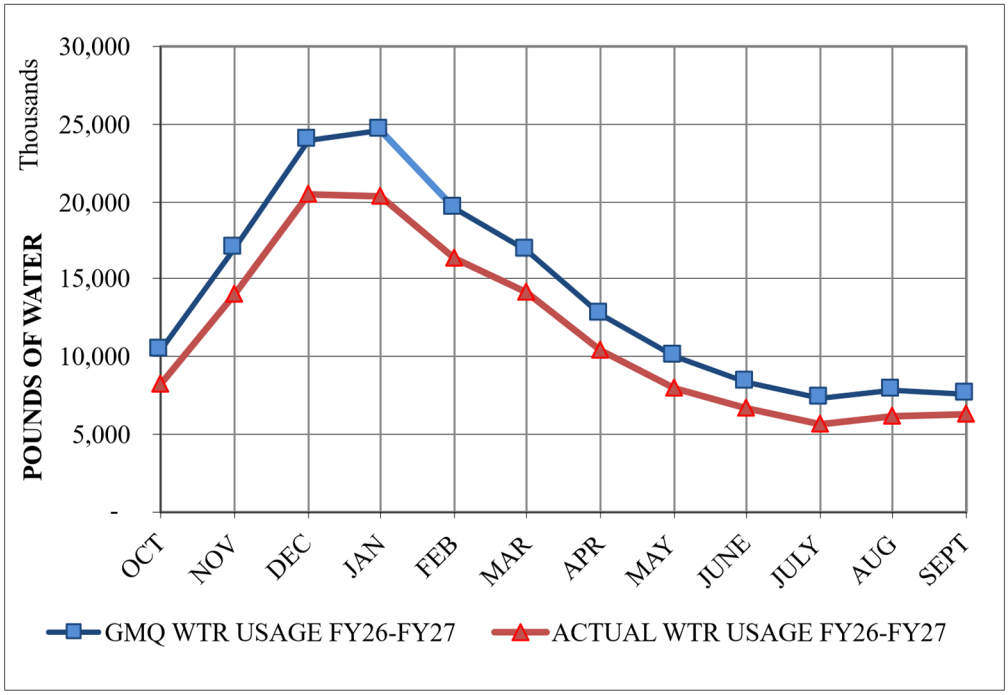


Figure 13. Steam Plant Water Performance Guarantee for the Previous Twelve Months Using a Mass Comparison

The actual steam-fuel metric was met each during the quarter. The fuel consumption per unit of steam sendout changed marginally over the previous First Quarter and has remained relatively consistent for more than a year.

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.

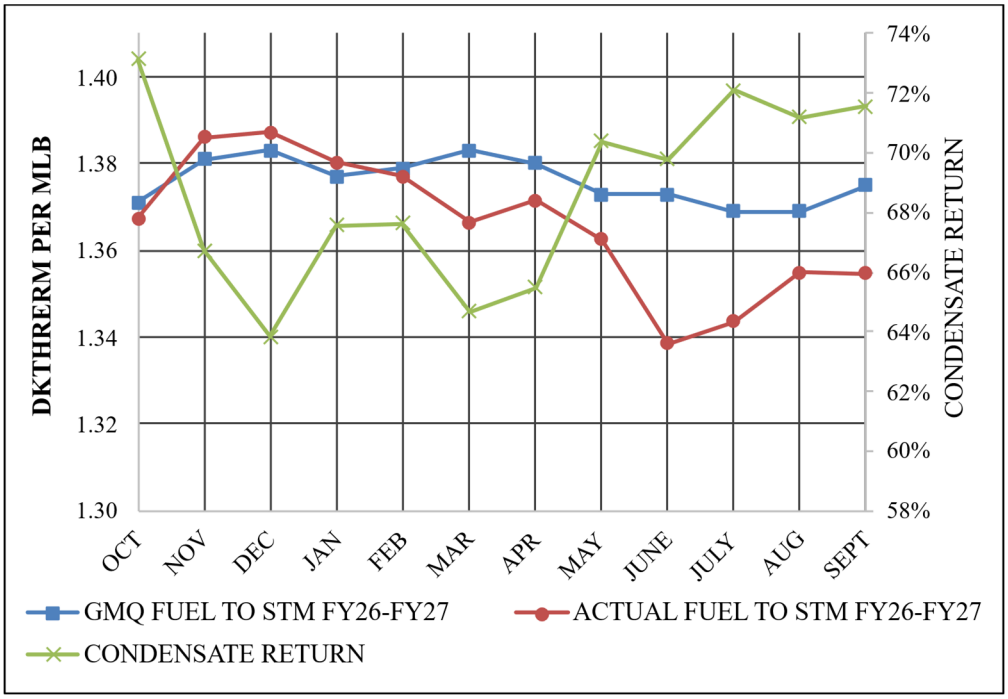


Figure 14. Steam Plant Fuel Performance Guarantee for the Previous Twelve Months

C. Contract Guarantee Performance

The production and sales performance for the EGF and EDS are summarized in Table 1 for the current quarter. 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 1. Quarterly and Annual Production, Sales, and Consumption Summary

Item	Unit	First Quarter FY27	First Quarter FY26	*Percent Difference
	days	92	92	0.00%
Total Electric Use	kWhrs	25,820,417	23,421,668	10.24%
Chilled Water	kWhrs	25,656,185	23,262,071	10.29%
Steam	kWhrs	164,232	159,597	2.90%
Total Water Use	kgal	60,345	54,825	10.07%
Total Chilled Water	kgal	58,178	52,490	10.84%
EDS Make-up	kgal	1,671	916	82.42%
Cooling Towers	kgal	56,534	51,572	9.62%
Calc CT Evaporation	kgal	46,498	43,032	8.05%
CT Blowdown	kgal	10,036	8,540	17.52%
Calc # Cycles		4.63	5.04	-8.05%
Sidestream Filter Backwash	gal	17,067	8,236	107.22%
Steam	kgal	2,167	2,336	-7.23%
Total Fuel Use	mmBTU	89,510	93,376	-4.14%
Natural Gas	mmBTU	89,510	93,376	-4.14%
Propane	mmBTU	0	0	0.00%
Condensate Return	kgal	5,847	5,986	-2.32%
	lbs	47,442,656	48,569,937	-2.32%
Avg Temp	°F	180.3	181.7	-0.73%
Sendout				
Chilled Water	tonhrs	29,223,900	26,978,500	8.32%
Steam	lbs	66,251,000	69,126,000	-4.16%
Peak CHW Demand	tons	18,621	17,997	3.47%
Peak Steam Demand	lb/hr	45,400	64,012	-29.08%
CHW LF		71.08%	67.89%	4.69%
Steam LF		66.09%	48.91%	35.13%
Sales				
Chilled Water	tonhrs	28,307,837	25,770,367	9.85%
Steam	lbs	49,825,969	52,808,117	-5.65%
Losses				
Chilled Water	tonhrs	916,063	1,208,133	-24.18%
Steam	lbs	16,425,031	16,317,883	0.66%
		24.79%	23.61%	5.02%
Degree Days				
CDD		1,522	1,392	9.34%
HDD		0	0	NA
Cooling Tower Blowdown Ratio				
Cooling Tower Blowdown	gal	10,036,000	8,540,000	17.52%
Chilled Water Production	tonhrs	29,223,900	26,978,500	8.32%
Ratio	gal/tonhrs	0.343	0.317	8.49%

*positive percent difference values imply an increase from FY26 to FY27

Table 2. Quarterly and Annual Performance Guarantee Comparison for Steam and Chilled Water

GMQ Calculations	Unit	First Quarter FY27	First Quarter FY26	*Percent Difference
Steam				
GMQ Elec Conversion	kWhr/Mlb	4.50	4.50	
Electric Conversion	kWhr/Mlb	3.30	3.04	8.41%
GMQ Plant Efficiency	Dth/Mlb	1.371	1.371	
Plant Efficiency	Dth/Mlb	1.351	1.351	0.01%
Actual %CR		71.61%	70.26%	1.92%
Avg CR Temp	°F	180	182	-0.73%
GMQ Water Conversion	lbs	22,570,013	24,667,276	-8.50%
Water Conversion	lbs	18,075,112	19,482,991	-7.23%
Chilled Water				
GMQ Elec Conversion	kWhr/tonhr	0.920	0.930	
Electric Conversion	kWhr/tonhr	0.906	0.903	0.38%
GMQ Water Conversion	gal/tonhr	2.00	2.00	
Water Conversion	gal/tonhr	2.05	2.04	0.93%

*positive percent difference values imply an increase from FY26 to FY27

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		FY27 Budget	First Quarter Expenses	Second Quarter Expenses	Third Quarter Expenses	Fourth Quarter Expenses	Total Spending to Date	% of Budget
Operating Management Fee								
FOC:	Basic	$ 4,509,600	$ 1,115,387	$ -	$ -	$ -	$ 1,115,387	24.73%
	FOC Change Orders	$ -	$ -	$ -	$ -	$ -	$ -	n.a.
		$ -	$ -	$ -	$ -	$ -	$ -	n.a.
		$ -	$ -	$ -	$ -	$ -	$ -	n.a.
		$ -	$ -	$ -	$ -	$ -	$ -	n.a.
		$ -	$ -	$ -	$ -	$ -	$ -	n.a.
Pass-thru Charges:	Chemical Treatment	$ 393,400	$ 85,503	$ -	$ -	$ -	$ 85,503	21.73%
	Insurance	$ 41,400	$ 39,259	$ -	$ -	$ -	$ 39,259	94.83%
Marketing:	CNE Sales Activity	$ -	$ -	$ -	$ -	$ -	$ -	n.a.
	Incentive Payments	$ -	$ -	$ -	$ -	$ -	$ -	n.a.
FEA:	Steam	$ 72,000	$ 3,553	$ -	$ -	$ -	$ 3,553	4.93%
	Chilled Water	$ 157,300	$ 1,284	$ -	$ -	$ -	$ 1,284	0.82%
Misc:	Metro Credit	$ -	$ -	$ -	$ -	$ -	$ -	n.a.
	ARFA	$ 70,900	$ 17,542	$ -	$ -	$ -	$ 17,542	24.74%
	Deferral	$ -	$ -	$ -	$ -	$ -	$ -	n.a.
	Subtotal - Man Fee =	**$ 5,244,600**	**$ 1,262,528**	**$ -**	**$ -**	**$ -**	**$ 1,262,528**	**24.07%**
Reimbursed Management Fee + Chem Treatment			$ 39,259	$ -	$ -	$ -	$ 39,259	0.00%
Metro Costs								
Pass-thru Charges:	Engineering	$ 110,200	$ 18,548	$ -	$ -	$ -	$ 18,548	16.83%
	EDS R&I Transfers	$ 327,900	$ 81,975	$ -	$ -	$ -	$ 81,975	25.00%
	Metro Marketing	$ 78,900	$ 11,246	$ -	$ -	$ -	$ 11,246	14.25%
	Project Administration	$ -	$ -	$ -	$ -	$ -	$ -	n.a.
	Metro Incremental Cost	$ 582,500	$ 115,562	$ -	$ -	$ -	$ 115,562	19.84%
Utility Costs:	Water/Sewer	$ 1,154,800	$ 300,322	$ -	$ -	$ -	$ 300,322	26.01%
	EDS Water/Sewer	$ -	$ 52	$ -	$ -	$ -	$ 52	n.a.
	EDS Electricity	$ 76,700	$ 22,110	$ -	$ -	$ -	$ 22,110	28.83%
	Electricity	$ 5,922,600	$ 2,401,039	$ -	$ -	$ -	$ 2,401,039	40.54%
	Natural Gas Consultant	$ 19,200	$ 4,950	$ -	$ -	$ -	$ 4,950	25.78%
	Natural Gas Transport	$ -	$ 72,432	$ -	$ -	$ -	$ 72,432	n.a.
	Natural Gas Fuel	$ 3,157,700	$ 319,710	$ -	$ -	$ -	$ 319,710	10.12%
	Propane	$ 106,700	$ 115,713	$ -	$ -	$ -	$ 115,713	108.45%
	Subtotal - Metro Costs =	**$ 11,537,200**	**$ 3,463,659**	**$ -**	**$ -**	**$ -**	**$ 3,463,659**	**30.02%**
	Subtotal - Operations =	**$ 16,781,800**	**$ 4,726,187**	**$ -**	**$ -**	**$ -**	**$ 4,726,187**	**28.16%**
Debt Service	2012A Bonds	$ 4,265,600	$ 1,582,755	$ -	$ -	$ -	$ 1,582,755	37.11%
	Self-Funded Debt	$ 1,323,000	$ -	$ -	$ -	$ -	$ -	0.00%
	MIP	$ -	$ -	$ -	$ -	$ -	$ -	n.a.
	Oper. Reserve Fund	$ -	$ -	$ -	$ -	$ -	$ -	n.a.
	Subtotal - Capital =	**$ 5,588,600**	**$ 1,582,755**	**$ -**	**$ -**	**$ -**	**$ 1,582,755**	**28.32%**
	Total =	**$ 22,370,400**	**$ 6,308,942**	**$ -**	**$ -**	**$ -**	**$ 6,308,942**	**28.20%**
Customer Revenues								
	Taxes Collected		$ 133,788	$ -	$ -	$ -	$ 133,788	n.a.
	Taxes Paid		$ 45,944	$ -	$ -	$ -	$ 45,944	n.a.
	Interest & Misc Revenue	$ 561,700	$ 135,899	$ -	$ -	$ -	$ 135,899	24.19%
	Penalty Revenues/Credits	$ -	$ 25,181	$ -	$ -	$ -	$ 25,181	n.a.
	Energy Revenues Collected	$ 21,423,700	$ 5,700,583	$ -	$ -	$ -	$ 5,700,583	26.61%
	Revenues =	**$ 21,985,400**	**$ 5,949,508**	**$ -**	**$ -**	**$ -**	**$ 5,949,508**	**27.06%**
	Metro Funding Amount =	**$ 385,000**	**$ 359,435**	**$ -**	**$ -**	**$ -**	**$ 359,435**	**93.36%**

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 $6,308,942. This value represents approximately 28% of the total budgeted operating cost for FY27. The total system revenues from the sales of steam and chilled water for FY27 are $5,949,508 (27% of budgeted amount) which includes the annual true-up amount for FY26 ($21,599) and other miscellaneous revenue sources. Metro has reported that the Metro Funding Amount (MFA) transfers of $96,250 (25% 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 23 customers and 44 buildings in downtown Nashville (including the Auto Nashville Hotel). Due to delays in the DES and building renovation schedule, service to the 414 Union St building has been postponed until the Fourth Quarter FY27; therefore, no revenue will be received from this building until late FY27; however, they are included in the number of customers and buildings served. Currently, the 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	$ 1,471,221	9,694,666	$ 0.1518		$ 328,872	11,036	$ 29.7992
State Government	$ 1,148,842	6,328,213	$ 0.1815		$ 455,795	17,060	$ 26.7175
Metro Government	$ 1,839,109	12,284,958	$ 0.1497		$ 456,744	21,730	$ 21.0192
New Customers	$ 1,168,783	7,424,362	$ 0.1574		$ 309,282	16,660	$ 18.5642
Total	**$ 4,459,172**	**28,307,837**	**$ 0.1575**		**$ 1,241,411**	**49,826**	**$ 24.9150**

Total Revenue	**$ 5,700,583**
True-up and Adjustments (Net)	**$ 248,925**
Net Revenue	**$ 5,949,508**

III. EGF Operations

Items relating to the facility operations presented herein are derived from the monthly reports issued by DEAO for FY27 in addition to the frequent reviews of the facility by TEG. 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:

DEAO did not report any trips or excursions during the quarter. The consistent operation of the EGF has greatly improved over the past few years.

B. Efficiency

DEAO did not meet the chilled water-water metric in August and September. 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 personnel complete online safety and training courses throughout the year. For the Fourth Quarter, the following additional courses were presented “Arc Flas Safety,” “AED, CPR and First Aid Training,” and fire extinguisher training.

D. Personnel

In July, another of DEAO’s stationary engineers retired and another one is expected to retire in the Second Quarter. DEAO hired a replacement stationary engineer who is anticipated to begin work in the Second Quarter. DEAO was staffed with nineteen full-time employees, one remote part-time employee and one shared employees as of the end of the quarter. Of the current number of employees, eight 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 71.6% of the steam sendout during the quarter, which represents an increase over the previous First Quarter of 1.9%.
  - 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 17.5% over the previous First Quarter. This change resulted in an average decrease in the cycles of concentration in the cooling towers of 8.1% for the quarter.
  - DEAO and TEG began monitoring and tracking the ratio of the cooling tower blowdown to the chilled water production. The average value for the quarter increased 8.5% over the previous First Quarter and is indicative of the increase in blowdown. DEAO did not meet the chilled water-water performance guarantee for August and September.
- 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.
  - 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. Values for turbidity at or below 1.0 are shown as 1.0 but test results were frequently below the detectable limit.

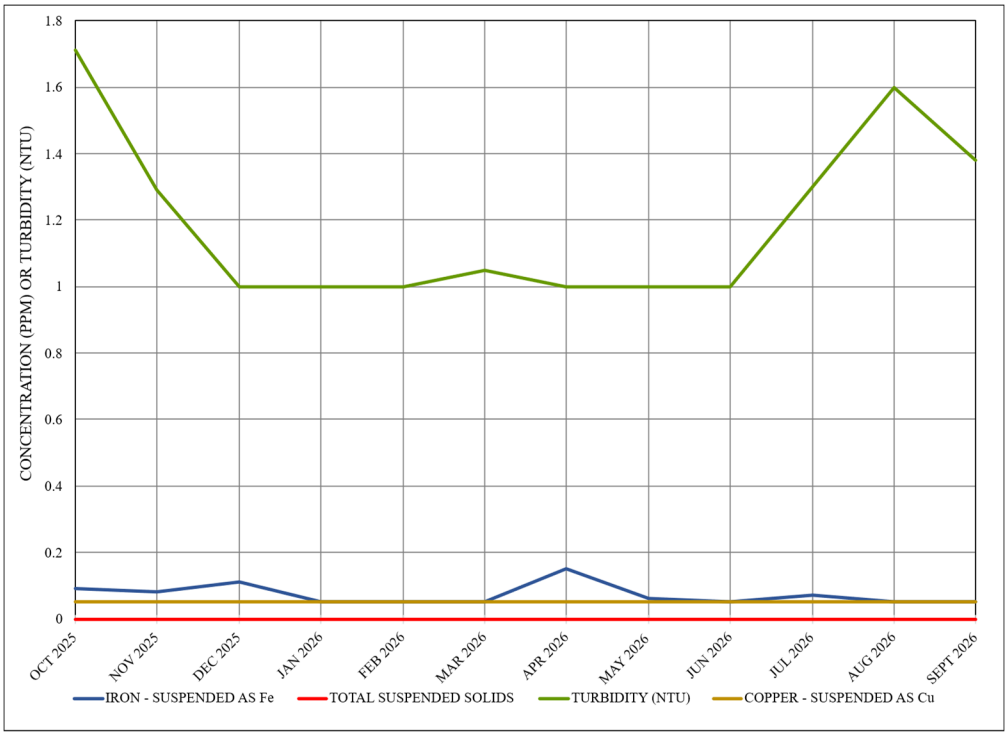


Figure 15. Chilled Water Composition Downstream of Side Stream Filter

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

- Temperature sensors for chillers 4, 6, and 9 were replaced;
- The solenoid valves for the purge unit for chiller 9 were replaced;
- The Trane chiller communication upgrade was completed during the quarter;
- Bearings for boiler feedwater pump were replaced;
- The steam trap for the boiler 1 steam blanket 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-26	$44,829	$30,480
Aug-26	$47,125	$23,217
Sept-26	$43,941	$23,415
Annual Totals	**$135,894**	**$77,112**

H. EGF Walkthrough

The EGF Walkthrough was conducted on September 29, 2026, 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. Very few items from the Fourth Quarter FY26 Walkthrough Report appear to have been addressed by DEAO.

- 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.** ***During the Second Quarter FY26 Walkthrough, some of the insulation had been removed on the condensate piping. During the Third Quarter FY26 Walkthrough, portions of this piping had been repaired. However, additional work is necessary and was discussed with DEAO. As of the First Quarter FY27 Walkthrough, the insulation repairs had not been completed. DEAO needs to complete the insulation repairs.***
- 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 prior to the upcoming cooling season and provide Metro/TEG with the schedule. This item will remain in the Walkthrough reports until such time as the replacement and repairs have been made. All cooling towers were reported by DEAO as having been cleaned during the quarter. The fill had not been repaired or replaced as of the First Quarter FY27 Walkthrough. However, the fill for cooling tower 1 had been replaced in its entirety. DEAO needs to continue with the cooling tower fill repairs.***
- 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. These issues have been discussed with DEAO. Caulking and sealing of leak entry points on the mezzanine level have been made. ***However, as of the First Quarter FY27 Walkthrough, the repairs to the rusted areas above motor control center 3 have not been completed.***
- TEG, MWS, and DEAO have previously discussed adding a pass key reader to the pedestrian gate at the north end of the parking lot. In addition, DEAO requested the water meter sensor be relocated to the inside of the fence near this pedestrian gate. DEAO had been released to install these components on the new fence panels as of the Third Quarter FY26 Walkthrough. DEAO relocated the water meter sensor

during the Fourth Quarter FY26, but the pass key reader has not been installed as of the First Quarter FY27. **DEAO needs to install the pass key reader.**

- The unused wooden pallets previously noted as being stored in the parking lot have been removed. In addition, several broken and unused valves and miscellaneous components are stacked in the parking lot near the trash bin. This item was previously reported in the Fourth Quarter FY26 Walkthrough, but the pallets and debris remained as of the First Quarter FY27 Walkthrough. **DEAO needs to remove the pallets and the discarded components from the parking lot.**
- Algae was noted within all of the cooling tower basins during the Fourth Quarter FY26 Walkthrough and algae was noted on the outside corner of cooling tower 12 due to a leak from the hot deck. Some algae remained present in the towers during the First Quarter FY27 Walkthrough. **DEAO needs to address the formation of the algae and repair the leak on cooling tower 12.**
- The door handle at the entrance of the electric room is not latching securely and needs repair. The tumbler for the dead bolt at the exit door to KVB (located in the stair well) appears to have been tampered with and is need of repair. **DEAO needs to repair these door components.**
- In addition to the insulation repairs noted under paragraph 1.a., additional damage was noted in several locations during the First Quarter FY27 Walkthrough. The insulation on the main steam header near the boilers has been damaged in two locations. The chiller insulation for chillers 1, 2, 3, 4, 5, 8, and 9 are in need of repair at the water boxes. The insulation at the chilled water valves for chiller 9 are no longer sealed causing condensation to leak from around the insulation. The insulation for chilled water pump 5 is also in need of repair. **DEAO needs to repair or replace the damaged insulation throughout the plant.**
- 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 items have been updated, but these may not be indicative of the maintenance performed by DEAO since few files have saved dates in CY2025**.** As of the First Quarter FY27, this issue remained. ***DEAO needs to ensure the IMaint attachments are included.***
- The hard drive space on the Metro PC is nearly full. TEG has taken action by removing some of the older customer meter and invoice data files to increase the available space. However, the DEAO server has repeatedly pushed the older meter data files back onto the Metro PC. The older customer invoice database files are not being pushed back onto the PC. ***DEAO needs to investigate why the deleted meter data files are being restored once removed or DEAO needs to install a second hard drive to make more space available. With an additional hard drive, TEG can change the Carbonite settings to ensure the data on the new drive is backed-up. As of the First Quarter FY27 Walkthrough, this issue remained.***
- DEAO needs to provide the most recent boiler inspection reports in addition to those for the upcoming inspections for 2026. DEAO needs to inform TEG for the schedule of the 2026 inspection and wants to review and document the condition of the economizers and lower portions of the stacks. DEAO reported they were

compiling the requested information and would present it to TEG once completed. The drums, furnaces, stacks, and economizers were open for review during the First Quarter FY27 Walkthrough for boilers 2 and 4. TEG has reviewed the drums, furnaces, stacks, and economizers for all boilers in 2026. **DEAO stated that the most current boiler inspection reports would be provided upon completion of the CY26 boiler inspections.**

- DEAO needs to provide the most recent Eddy Current Inspection reports and any vibration analysis reports for the chillers inspected and tested in 2025 and 2026. DEAO reported they were compiling the requested information and would present it to TEG once completed. **This documentation was provided by DEAO during the quarter and will be removed from future reports.**
- Other action items previously noted to be addressed by DEAO may have been completed. (See also the "Quarterly EGF Walkthrough Report," dated October 5, 2026, 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 FY27 Open Projects

The following projects remained open at the end of the First Quarter FY27.

1. 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 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 qualified two additional mechanical contractors, and a pre-bid meeting was held on December 10, 2025, with four contractors present. Because this work involves lifting the piping at each support and this will have to be accomplished without shutting down any of the services, TEG decided to limit the initial scope to just the Broadway Tunnel repairs on a time and material, not-to-exceed basis. The bid due date was January 7, 2026. The bids were reviewed and the project awarded.

Work began in the Fourth Quarter FY26 with completion of the Broadway Tunnel repairs in the same quarter without any complications. Therefore, TEG instructed DEAO to obtain lump sum pricing from the contractor for the outlined scope for the 4th and 7th Avenue Tunnels. Based on the pricing received, TEG instructed DEAO to award the remaining scope under a change order. That task was completed and work on the 4th Avenue Tunnel supports was completed during the 1st Quarter FY27. Work was started on the 7th Ave Tunnel and is expected to be complete during the 2nd Quarter FY27.

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

The development's owner has stated the construction of the building is being delayed. Until a schedule is provided to DES, the construction of the service extension to this building is postponed.

3. 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. DEAO completed the tagging of the valves and provided TEG with documentation identifying any discrepancies between field conditions and the information represented by the drawings generated by TEG during the Third Quarter FY26. During the Fourth Quarter FY26, TEG reviewed this information and made modifications to the drawings reflecting actual conditions. TEG created a list of the additional tags needed and obtained a quote from the tag supplier. This quotation was forwarded to DEAO and an order was placed. The additional tags were received and DEAO will install the tags during their routine review of the EDS.

4. DES236 – Third Ave Condensate Return Replacement

This project is now closed.

5. DES240 – Viridian Manhole Platform

Portions of the insulation in this manhole needed to be replaced. This was done under DES229. The manhole is small, and the entry ladder is extremely close to the piping. The newly installed insulation obstructs the use of the entry ladder rungs. Therefore, this project was opened to install a maintenance platform in the manhole which the upper portion of the entry ladder can access. This platform will provide access to the manhole valves.

This project was bid and awarded during the Fourth Quarter FY26. Construction began and was completed during the First Quarter FY27. This project is now closed.

6. DES241 – Manhole D3 Electrical

Manhole D3 is located at the east end of the AA Birch Tunnel. This manhole is located on Second Avenue North between the AA Birch Building and the

Downtown Detention Center. There is an irrigation system which serves the AA Birch Building which has a leak. Whenever the irrigation system is energized, water flows into Manhole D3 and drips on electrical enclosures/components within the manhole. Representatives from the Parks Department, AA Birch and the Downtown Detention Center have been contacted and there is a question regarding the ownership of the supply line serving the irrigation system. Additionally, the leak is believed to be in an area which is extremely difficult to access. Believing that a repair to this leak will not occur soon, through discussions with the DES liaison, the decision was made to replace the electrical components in Manhole D3 with watertight appurtenances. TEG prepared a written scope and presented it to DEAO. A pre-bid meeting was held, and the work was awarded during the Third Quarter FY26.

TEG has reviewed and approved submittals during the Fourth Quarter FY26. The initial delivery schedule supplied to the contractor was 4-6 weeks. When the contractor placed the order for the equipment, the supplier announced that the delivery will be 12-14 weeks instead of the 4-6 weeks quoted. At the end of the 1st Quarter FY27, the parts had not been received. Work will begin once the equipment is received.

7. DES242 – Woodland Street Bridge – CHW Insulation Repairs

DES chilled water is supplied to the Nissan Stadium. The service piping to the stadium is suspended underneath Woodland Street Bridge which crosses the Cumberland River in the downtown area. On the east end of the bridge, the chilled water turns vertically down from the bridge into the ground and is buried to the stadium. Some portions of the insulation and jacketing on these vertical pipes are corroded and in need of repair. This project addresses these repairs.

NDOT has completed renovations to the bridge, therefore this repair work will not interfere with NDOT's work.

TEG prepared bid drawings for this project and issued them to DEAO during the Fourth Quarter FY26. TEG is awaiting DEAO to schedule a pre-bid meeting which has been delayed by DEAO due to their workload on other DES projects.

8. DES243 – 414 Union Street Service

The owner of the 414 Union St building executed a Customer Service Agreement during the Fourth Quarter. This building is currently a 25-story office building, and the owners intend on re-develop the upper twelve floors into a specialty hotel. The remainder of the building will undergo some renovations but will largely retain office space with an additional restaurant.

TEG completed the service connection design during the Fourth Quarter and issued drawings for bid on May 1, and a pre-bid meeting was held on May 14. Bids were

received and approved during the same quarter. Work for the piping connections were originally anticipated to begin in June. Due to delays in permitting, material deliveries, and contract issues between the installing contractor and DEAO, the construction did not commence until mid-July. Although the completion of the work to the point of service readiness was originally agreed by the installing contractor to be September 1, the service readiness of the steam, condensate, and chilled water did not occur until October 9.

The Customer Service Agreement includes a Service Commencement Date of September 1, 2026, which was not met. The customer's building renovations have been delayed, and the Customer has been gracious and understanding about the DES construction delays. A revised Service Commencement Date is being negotiated with the Customer, but the new date may not be until the Fourth Quarter FY27.

9. DES244 – Nashville Fire Department Headquarters Service

In late FY25 and through FY26, TEG began working with various Metro departments evaluating the potential service to a proposed Fire Department Headquarters building located at Second Ave North and Gay Street. The financial and technical aspects of the service have been fully evaluated.

In the Fourth Quarter FY26 and into the First Quarter FY27, the development's MEP continued working on the in-building design assuming steam and chilled water service from DES. TEG and MWS are awaiting schedules for the design and construction of the project, and design coordination with the building's engineers continues. Service is not anticipated until 2029.

10. DES245 – MH-23 Anchor Pedestal and 7th Ave Tunnel Repairs

There is a steam and condensate slip joint concrete anchor pedestal located in Manhole 23. Part of the concrete on this pedestal has spalled and a small portion of rebar is exposed. Additionally, the roof of this manhole consists of pre-formed concrete panels that can be removed if needed to perform maintenance within the manhole. Groundwater is infiltrating at the joints of these panels onto the piping and equipment within the manhole. These joints need to be sealed, or the water needs to be contained and diverted. This project addresses both these repairs.

This project also addresses water infiltration repairs within the 7th Avenue Tunnel.

DEAO coordinated a meeting with a contractor in early January 2026 to review the needed repairs. The contractor has presented time and material pricing, and TEG followed up with some questions. TEG received the contractor's response and TEG directed DEAO to issue a purchase order to the contractor to complete this work. Due to the contractor's existing workload, he is not available to perform the work until sometime in August. DEAO is coordinating the schedule with the contractor.

Work was completed in September. This project is now in close out..

11. DES246 – Boring Company

Current work boring tunnels in Nashville by the Boring Company has remained distant to the EDS. TEG has been in contact with the Boring Company's engineering team to discuss locations of EDS piping and structures and potential conflicts along their proposed pathways. The progress of their work may create the need for more data and document exchange. However, no interaction occurred during the quarter. TEG will remain engaged and monitor the Boring Company's activities as they relate to DES.

12. DES247 – FVB Study Support

During the Third Quarter FY26, Metro retained a consultant to evaluate the Program Recommendations for the DES. This consultant, FVB Energy, Inc. requested information from Metro to support their analysis which was provided to them during the Fourth Quarter. Meetings were also held between FVB, TEG, and MWS during the Third and Fourth Quarters FY26 and into the First Quarter FY27 to discuss the requested information and FVB's scope.

13. DES248 – EDS Valve Maintenance Plan

TEG has directed DEAO to identify all valves within the EDS that either do not function properly or do not adequately close and seal effectively such that associated pipeline sections may be isolated. This project addresses this effort.

DEAO is currently developing a plan to address the primary chilled water distribution valves. DEAO is expected to develop a plan for the steam and condensate isolation valves also. Because of maintenance activity within the EDS, DEAO has been able to identify the status of some valves. In early 2026, DEAO verbally reviewed a preliminary plan to test several of the main chilled water valves with TEG. TEG is now awaiting a written draft plan from DEAO to test the functionality of these primary chilled water valves. TEG is also awaiting a draft plan from DEAO to test all the chilled water, steam, and condensate valves.

Any repair and replacement of valves will be included within this project. This project will continue until all issues are resolved.

14. DES249 – Nissan Stadium Termination Plan

TEG developed a termination plan during FY26 for the DES services at the existing Nissan Stadium which was conveyed to the appropriate parties. Demolition of the stadium is anticipated to begin in January or February 2027. DES will be notified as the date approaches so that the existing instrumentation may be removed from the premises.

15. DES250 – Enecon EDS Coatings Main Tunnels

A few years ago, a project was executed to clean and coat several of the pipe supports within 4th Avenue, 7th Avenue and Broadway Tunnels that were corroded. That project addressed the supports that were in the poorest condition. This project addresses 116 additional supports that that are corroded and need to be cleaned and coated.

TEG instructed DEAO to obtain quotations to clean and coat these additional supports. Quotes were received/reviewed and TEG instructed DEAO to issue a purchase order to have the work executed.

Work began during the First Quarter FY27 with the completion of the Broadway Tunnel and the 4th Ave Tunnel. It is anticipated that the 7th Ave Tunnel will be completed in the Second Quarter FY27.

16. DES251 – New East Bank Service

TEG provided extensive information regarding the recommended expansion of DES services on the East Bank during the quarter. The expansion of services are intended to provide service to the new Tennessee Performing Arts Center and potentially other customers in the area. TEG and MWS have been actively involved with other Metro entities and utilities in the planning and development of the East Bank. The expansion of the DES infrastructure and deliverable capacity is essential in reducing Metro's carbon footprint and reducing capital and operating costs for future developments on the East Bank.

17. DES252 – Miscellaneous Manhole Repairs

There are several manholes which need repairs to be executed. This includes:

a. Manhole 6 – Ladder attachment repairs
b. Manhole 9 – Repair of spalled concrete
c. Manhole 10 – Repair of spalled concrete
d. Manhole 11 – During the repair of a steam kicker retaining plate it was discovered that the western manhole wall has experienced spalling and corrosion of exposed rebar. It was also discovered that an additional pipe support is needed on the steam piping. This work has been added to the scope of this manhole.
e. Manhole 15 – Grating replacement and piping wall penetration repair
f. Manhole 22B – Grating replacement
g. Manhole 23 – Piping end can replacement
h. Manhole C – Concrete anchor pedestal repair
i. Manhole D – Piping end can replacement
j. Manhole D2 – Caisson repair
k. Manhole D3 – Ladder attachment repairs

This project addresses these repairs and will be executed over the next several months. Additional miscellaneous repairs may be added to this scope.

18. DES253 – Library and Archives and Supreme Court Renovations

During FY26, engineers for the redevelopment and renovations at the State Library and Archives and Supreme Court building contacted TEG to coordinate the anticipated work in the area which may impact DES services in the area. Coordination continued during the First Quarter FY27. Work is not anticipated to begin until FY28 at the earliest. At the time of this report, the State's engineers have all the information from TEG and DES they need.

19. DES254 – DES Service to the New TPAC

MWS has stated they are dedicated to providing chilled and hot water service to the new Tennessee Performing Arts Center. The expansion of the services will require additional piping to cross the Cumberland River due to the additional work on the East Bank prohibiting an expansion from the existing chilled water at Woodland Street. This project includes the specific work required to serve TPAC but overlaps work associated with the New East Bank Service (DES251).

Several meetings were held during the First Quarter FY27 with TPAC's design team. Final load information and refining of the service connections are anticipated in the Second Quarter FY27.

B. First Quarter FY27 Closed Projects

Projects DES236 and DES240 were closed during the First Quarter FY27. (DES240 was executed and completed during the quarter.)

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 FY26 and FY27may not be noted due to outstanding invoices from the contractors. The total budgets for DES249, DES250, DES251, DES252 and DES254 may change as the scope of the work and expenses to DES are more fully defined.

Table 6. Capital Projects Expense Summary

	DES Project #	Description	Total Budget	FY27 Spending to Date	Total Spent to Date	Remaining Balance
Fund-49116						
	DES213	Tunnel Support Repair	$ 321,500	$ 46,023	$ 103,569	$ 217,931
	DES217	DES Service to AutoNashville Hotel, LLC	$ 3,079,000	$ -	$ 56,499	$ 3,022,501
	DES222	EDS Tagging Program	$ 44,000	$ 1,001	$ 43,047	$ 953
	DES236	3rd Ave Condensate Replacement	$ 560,000	$ 299,306	$ 857,836	$ (297,836)
	DES240	Viridian Platform	$ 49,500	$ 761	$ 10,792	$ 38,708
	DES241	MH-D3 Electrical	$ 55,000	$ 58	$ 6,707	$ 48,293
	DES242	Woodland St-Insulation Repairs	$ 82,500	$ 88	$ 9,928	$ 72,572
	DES243	414 Union Service	$ 810,000	$ 23,090	$ 72,814	$ 737,186
	DES244	NFD Service	$ 3,258,100	$ 114	$ 8,361	$ 3,249,739
	DES245	MH 23 Anchor Repair	$ 55,000	$ 2,179	$ 6,080	$ 48,920
	DES246	Boring Co Coordination	$ 17,000	$ -	$ 1,958	$ 15,042
	DES247	FVB Study Support	$ 52,000	$ 4,499	$ 12,811	$ 39,189
	DES248	EDS Valve Maintenance Plan	$ 275,000	$ 7,691	$ 13,084	$ 261,916
	DES249	Nissan Stadium Service Termination	$ 110,000	$ -	$ 6,475	$ 103,525
	DES250	Main Tunnels Structural Cleaning and Coating	$ 150,000	$ 60,628	$ 62,255	$ 87,745
	DES251	East Bank Developments and Service to TPAC	$ 110,000	$ 65,631	$ 80,380	$ 29,620
	DES252	Misc Manhole Repairs	$ 275,000	$ 45,180	$ 45,180	$ 229,820
	DES253	Sup Ct and Lib Pipe Reconfiguration	$ 110,000	$ 3,456	$ 3,456	$ 106,544
	DES254	TPAC Service	$ 7,600,000	$ 3,545	$ 3,545	$ 7,596,455
	DES255	Washington Sq Service	$ 440,000	$ 3,106	$ 3,106	$ 436,894
		Total Closed Projects	$ 8,054,734	$ -	$8,054,734	$ -
		Metro Project Admin	$ -	$ -	$ -	$ -
		Project Man, Development, etc	$ 491,666	$ -	$ -	$ 491,666
		Fund Total	**$ 26,000,000**	**$ 566,355**	**$9,462,615**	**$16,537,385**

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 $29,568. Table 7 provides a summary of the FY27 expenditures and revenues to date associated with the R&I budget.

Table 7. FY27 Repair and Improvement Expenditure and Revenue Summary

Description	Date	Tracking #	Vendor	Expenditure	Transfers	Balance
Value at end of FY26				**$ 805,365.76**		**$ 28,891.77**
July Interest	7/1/2026	-	-	$ 1,472.76		
July Interest	7/1/2026	-	-	$ (1,472.76)		
July 2026 EDS R&I	8/25/2026	-	DEAO	$ 42,395.61		
August Interest	8/3/2026	-	-	$ 941.19		
August Interest	8/3/2026	-	-	$ (941.19)		
Aug 2026 EDS R&I	9/17/2026	-	DEAO	$ 8,569.11		
September Interest	10/1/2026	-	-	$ 969.21		
September Interest	10/1/2026	-	-	$ (969.21)		
Sept 2026 EDS R&I	10/21/2026	-	DEAO	$ 953.29		
DES240 Grating Replacement	10/21/2026	-	DEAO	$ 18,234.00		
DES252 Misc Manhole Repairs	10/21/2026	-	DEAO	$ 9,090.45		
DES213 Tunnel Slides	10/21/2026	-	DEAO	$ 29,381.00		
			Sub-Total First Quarter	**$ 108,623.46**	**$ 81,975.00**	**$ 2,243.31**
			Sub-Total Second Quarter	**$ -**	**$ 27,325.00**	**$ 29,568.31**
			Sub-Total Third Quarter	**$ -**	**$ -**	**$ 29,568.31**
			Sub-Total Fourth Quarter	**$ -**	**$ -**	**$ 29,568.31**
			FY27 Year to Date	**$ 108,623.46**	**$ 109,300.00**	**$ 29,568.31**

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 $51,918 for FY27. An annual credit limit of $20,000 for such work was included as part of the Amendment 3 of the ARMA. Of this total, $12,000 has been credited for FY27. 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 absent/removed or damaged insulation should be repaired or replaced after the trap is replaced.
   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 planned by DEAO for the shutdown did not close adequately. Therefore, it became necessary for DEAO to isolate valves upstream of the project and repair areas 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 and report 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. DEAO started to address this need under DES248, but TEG is still awaiting a final written plan. As this task is completed, 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
Jul-26	$18,160	$83,201
Aug-26	$28,389	$12,521
Sept-26	$18,090	$10,988
Annual Totals	**$64,639**	**$106,709**

C. Emergencies

There were no emergencies during the quarter.

D. EDS Walkthrough

The First Quarter FY27 walkthrough was conducted on July 29 and 31, 2026. The manholes that were visited included Manholes 2, 3, 4, 5, 6, 9, 10, 11, 12, 13, 18A, 20, 22B, C, D, D1 and U.

In summary, 17 manholes were reviewed.

- 8 manholes contained too much water to enter and were pumped prior to entry (Manholes 2, 3, 4, 5, 6, 11, 18A and C) Manholes 9 and 10 have sump pumps but the pumps cannot remove all the water from the manhole floors.
- 1 manhole (Manhole 22B) had prior piping work done over 2 years ago but the disturbed insulation has not been repaired.
- There are several items which have appeared in the prior year's (in some cases the prior two-years' reports) that need to be addressed immediately.

The following comments and observations are a result of these visits:

There is an action item list included at the end of the quarterly walkthrough report identifying twenty-one (21) high or critical items that need to be addressed by DEAO,

eight (8) of which have been reported multiple times. Subsequent to this review, DEAO has completed a few of the high priority, long-term items.

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 few years ago, concrete patching material was applied to several small areas on the walls and ceiling where concrete was flaking, some at rebar chair feet that are located at the concrete surface. Some of these patches are beginning to experience flaking. DEAO personnel should monitor these patched areas and notify TEG if the deterioration progresses**.**
   d. The concrete patch material in a couple of areas in the ceiling (mentioned in item 1.c. above) has failed and the bottom of the corroded rebar chairs are exposed. It appears that the patching procedure might not have been executed correctly. DEAO should have Enecon prepare a quotation to make repairs based on the following procedure: DEAO should have Enecon chip away the concrete around the chairs to 1" below the concrete surface. The exposed rebar chair should then be cut and removed. The remaining chair "stub" should then be cleaned and coated with Enecon Chemclad GP. After the Chemclad GP has dried, the concrete depression should be filled/patched with Enecon Duraquartz so that the patch is flush with the existing concrete surface. **This item appeared in the last two year's reports.**
   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 the last two years' reports.**
   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**.**

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 obtain a quote from Enecon to chip away

any loose concrete along this crack and fill/patch it with Duraquartz. **This item appeared in the last report.**

c. The steel piping supports, and the entry ladder were cleaned and coated by Enecon within the last 2-1/2 years. The coating has failed in several locations on both the entry ladder and the piping support. DEAO should add this ladder to the Amendment 2/3 list for replacement, however, TEG will provide some dimensional changes to be incorporated into the new ladder's design to allow it to extend into the manway opening. DEAO should wire wheel and clean the areas of corrosion on the pipe support and paint it with cold galvanizing paint. Once it is determined if Enecon's media blasting and coating are effective, these areas might be re-visited by Enecon.

d. There is a small spot of corrosion in the ceiling near the entry manway, presumably it is where the bottom of a rebar chair is located. DEAO should have Enecon prepare a quotation to make repairs based on the following procedure: DEAO should have Enecon chip away the concrete around the chairs to 1" below the concrete surface. The exposed rebar chair should then be cut and removed. The remaining chair "stub" should then be cleaned and coated with Enecon Chemclad GP. After the Chemclad GP has dried, the concrete depression should be filled/patched with Enecon Duraquartz so that the patch is flush with the existing concrete surface.

3. Manhole 4

a. There was water in this manhole, and it required pumping before entry.

b. DEAO recently replaced the entry ladder with an aluminum ladder under their Amendment 2/3 obligation.

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. The humidity being introduced into Manhole 4 is causing accelerated corrosion in this manhole. DEAO and TEG reviewed the basement piping and discussed cutting and capping this vent piping in the building. TEG is researching the history of the piping modifications in the basement and will need to re-visit the 401 Union basement soon. DEAO should coordinate with TEG a time to re-visit the 401 Union basement – this needs to occur within the next month.

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 is corroded badly and needs to be replaced; in addition, the valve is inoperable. The valve is in vertical piping immediately above the sparge tube. During this review, TEG and DEAO removed a portion of the insulation on the sparge tube at the vertical pipe connection and discovered that the tee fitting of the sparge

tube is badly pitted and requires replacement. This valve is needed to isolate the piping for the installation of the new 414 Union service just north of Manhole 5. TEG discussed the needed repairs with DEAO and DEAO's contractor. The repair will include a new sparge tube and trap assembly.

c. There is a pipe support "kicker" at the bottom of the entry ladder that was cleaned and coated by Enecon. The coating has failed at the support's wall plate. DEAO should clean this area with a wire wheel, remove the flaked coating and corrosion, and paint it with cold galvanizing paint.

5. Manhole 6
   a. There was water in this manhole, and it required pumping before entry.
   b. There are small areas of corrosion in the ceiling near the entry manway. Presumably, this is where the bottom of rebar chairs are located. DEAO should have Enecon prepare a quotation to make repairs based on the following procedure: DEAO should have Enecon chip away the concrete around the chairs to 1" below the concrete surface. The exposed rebar chair should then be cut and removed. The remaining chair "stub" should then be cleaned and coated with Enecon Chemclad GP. After the Chemclad GP has dried, the concrete depression should be filled/patched with Enecon Duraquartz so that the patch is flush with the existing concrete surface.
   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 clean these areas with a wire wheel and apply cold galvanizing paint to mitigate corrosion. Once it is determined if Enecon's media blasting and coating are effective, these areas might be re-visited by Enecon.
   d. A few of the entry ladder support anchor bolts have deteriorated and need to be replaced. TEG will develop a repair/replacement plan and provide it to DEAO for implementation.

6. Manhole 6A
   a. Manhole 6A consists of two separate manholes that include the steam and condensate return piping in one manhole, and chilled water supply and return piping in the second manhole; this piping serves the Hermitage Hotel. Each of these manholes have only one manway which is a potential safety hazard for personnel entry/maintenance. Both manholes have dirt floors, and the steam/condensate manhole is extremely hot and perpetually has secondary steaming. DEAO has reported that the steam valve is inoperable.
   b. TEG had an internal discussion of the need for these manholes which also included a discussion of the need to review the Hermitage Hotel's mechanical room equipment and its accessibility. Thus, several site

visits were made by both TEG and DEAO to the Hermitage Hotel's mechanical room and direction was given to the Hermitage Hotel management team to provide better accessibility to the DES valves and instrumentation. The Hermitage Hotel complied with these requests.

c. Because steam and condensate service to the Hermitage Hotel can be isolated from Manholes 6 and 23, and better accessibility has been provided to the isolation valves in the Hermitage mechanical room, TEG has determined that access to the Manhole 6A steam manhole is not critical and therefore, at this time, no modifications are needed to this manhole.

7. 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 seeping around both the eastern and 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. These wall penetrations were recently sealed by Enecon with their hydraulic cement; therefore, the inflow path of this infiltration is not clear. Condensation of the city water pipe is possible but from review, it does not appear that this is the source. There is minor erosion of the concrete wall underneath the wall penetrations due to this water flow; this erosion needs to be addressed before it progresses. However, with the fall season approaching, if the water source is the nearby irrigation system, DEAO should monitor these wall penetrations to determine if the water flow ceases when the irrigation system is isolated for the winter. TEG will develop a repair for the concrete erosion. DEAO should continue to monitor this seepage and report findings to TEG.
   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 western large beam column, 2) the base of the small eastern beam column and 3) the overhead beam at the transition from the manhole addition to the original manhole structure. DEAO should clean these areas with a wire wheel and coat them with cold galvanizing paint as soon as possible. Once it is determined if Enecon's media blasting and coating are effective, these areas might be re-visited by Enecon.
   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 the water infiltration and report any significant changes to TEG immediately.
   e. Concrete has spalled from the surface of the lower and mid areas at the eastern end of the concrete opening mentioned above. Since this review,

this item was added to ProShot's scope, and the repairs have been completed.

f. There is some minor corrosion on the electrical conduit in this manhole. DEAO should wire brush these areas and paint them with cold galvanizing paint as soon as possible to prevent this corrosion from propagating.

8. 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 other occasion. Once again, the coating at the baseplate has failed. DEAO should wire wheel the area(s) of failure and coat the support with cold galvanizing paint as soon as possible. Once it is determined if Enecon's media blasting and coating are effective, these areas might be re-visited by Enecon. **This item appeared in the last report.**
   d. Some of the existing insulation blankets are in poor condition and need to be replaced. Also, the valve next to the eastern wall needs to be fitted for an insulation blanket. DEAO should get a quotation to replace these blankets and present it to TEG.
   e. DEAO recently replaced the corroded electrical enclosures in this manhole with new stainless-steel enclosures.
   f. DEAO recently cleaned out the sump in this manhole and replaced the sump pump discharge hose.
   g. The bottom of the rebar chairs are visible in the manhole ceiling and show signs of corrosion. DEAO should have Enecon prepare a quotation to make repairs based on the following procedure: DEAO should have Enecon chip away the concrete around the chairs to 1" below the concrete surface. The exposed rebar chair should then be cut and removed. The remaining chair "stub" should then be cleaned and coated with Enecon Chemclad GP. After the Chemclad GP has dried, the concrete depression should be filled/patched with Enecon Duraquartz so that the patch is flush with the existing concrete surface.
   h. There is an area on the western wall with concrete spalling and rebar is visible. Since this review, this item was added to ProShot's scope, and the repairs have been completed.

9. 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 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 with two 90-degree elbows added to the piping. This reconfiguration changed the location of the western steam wall penetration, and a horizontal beam was installed spanning the original wall penetration with a 3" pipe installed between the beam and the backside of the lower 90-degree elbow. Steel plates were then installed above and below the horizontal beam. During last year's review, the plates had appeared to have pulled away from the wall, apparently the result of the cooling of the piping during a recent steam system shutdown. Because the steam piping includes a slip joint at the eastern end of the manhole, TEG and DEAO removed the insulation blanket from the slip joint to determine if the joint was "bound" which might have contributed to the movement of the plates. Based upon measurements, the slip joint does not appear to be bound. TEG instructed DEAO to have a contractor remove the plates and it was discovered that there is a large area of spalled concrete on the western wall that needs repair. Because ProShot will be in Nashville to make some shotcrete and concrete repairs, TEG has instructed DEAO to expand ProShot's scope to include the repair of this wall under DES252. TEG has provided DEAO with construction drawings for this repair. Since this review, this item was added to ProShot's scope, and the repairs have been completed.
e. Through a stress analysis of the piping in Manhole 11, TEG determined that an additional support is needed for the steam piping. TEG has provided DEAO with construction drawings to add this support**.**

10. 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 wire wheel these areas and then paint them with cold galvanizing paint. Once it is determined if Enecon's media blasting and coating are effective, these areas might be re-visited by Enecon. **This item appeared in last year's report**.
    c. There is some corrosion in the ceiling near the entry manway, presumably resulting from the corrosion of rebar chairs. This item was reported in the 1st Quarter FY24 review and the corrosion was removed and the area coated by Enecon. This was not an effective repair. DEAO should have Enecon prepare a quotation to make repairs based on the following procedure: DEAO should have Enecon chip away the concrete around the chairs to 1" below the concrete surface. The exposed rebar chair should then be cut and removed. The remaining

chair "stub" should then be cleaned and coated with Enecon Chemclad GP. After the Chemclad GP has dried, the concrete depression should be filled/patched with Enecon Duraquartz so that the patch is flush with the existing concrete surface**.**

11. 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 contributes to heat loss from the EDS. **This item appeared in the last four reports**.
    c. There is a large steam valve (Valve Tag No. STM-001) in this manhole that has a very loose-fitting insulation blanket. DEAO should obtain a quote for a new, better fitting insulation blanket to help reduce the heat loss (heat gain to the manhole) from this valve.
    d. There is some water on the manhole floor beneath the chilled water valves and piping at the western wall (Valve Tag Nos. CWS-001 and CWR-001). TEG instructed DEAO to remove the insulation from these valves to determine the source of this water, which was done. DEAO determined that groundwater was not seeping in through the wall penetrations, so the valves were re-insulated. During this review, water is still ponding underneath these valves/piping. A portion of this piping is underneath the second vent manway and therefore the water accumulation may be surface runoff. However, water was observed dripping from the insulation lagging during this review. Therefore, the water might be condensation resulting from deteriorated or inadequate insulation. DEAO should coordinate an on-site meeting with the insulator and TEG to evaluate the existing CHW piping insulation.
    e. 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. **This item appeared in last year's report**.
    f. The structural steel within this manhole was cleaned and coated by Enecon and is in good condition.
    g. The eastern hanger rod for the condensate piping in the low ceiling area of the manhole was broken – DEAO recently repaired this rod with a rod coupling**.**

12. Manhole 18A
    a. There was water in this manhole, and it required pumping**.**

b. The two structural steel bases have some minor corrosion. This corrosion should be cleaned with a wire brush/wheel and the area painted with cold galvanizing paint as soon as possible. **This item appeared in last year's report**.
c. The steam piping link seal at the eastern wall penetration has started to "back out" of the wall penetration and it has deteriorated and some of the bolts have corroded and broken. This link seal needs to be replaced. TEG will develop a plan to provide to replace this link seal and provide it to DEAO.

13. Manhole 20
    a. The steam piping southern wall penetration end can is corroded and needs replacement. Because of the limited accessibility, TEG would like to meet with DEAO and a contractor to review the access to determine if a replacement end can be installed.
    b. There is some moisture around some of the piping penetrations. DEAO should monitor this and report any significant changes to TEG.

14. Manhole 22B
    a. This manhole is at the top of a vertical shaft which connects to the 7th Ave Tunnel.
    b. Portions of the grating covering the vertical shaft opening is corroded and should be replaced. 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. Adequate "gaps" need to be maintained at the piping penetrations to allow for thermal movement of the piping. **This item appeared in last two years' reports**.
    c. DES218 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 and left uninsulated to confirm the success of the repair. The work was completed in May 2024, and the insulation has not been re-installed to-date. DEAO should have this insulation re-installed as soon as possible. **This item appeared in last two years' reports**.

15. Manhole C
    a. There was water present in this manhole, and it required pumping before entry.
    b. There is 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. **This item appeared in last year's report.**

c. The insulation blankets in this manhole have deteriorated. DEAO should obtain quotes to replace these blankets within the next 6 months. **This item appeared in last year's report.**
d. The insulated waterline passing through this manhole have water stains below the wall penetrations and the stains are white indicating that calcium was present in the water. This possibly indicates that the seepage is groundwater. Therefore, the insulation jacketing should be removed at both ends of the piping and the wall penetrations reviewed to verify if water intrusion is occurring at these wall penetrations. If water intrusion exists at these wall penetrations, DEAO should have a small portion of the pipe insulation removed to allow Enecon to install hydraulic cement at the penetrations.
e. The northern steam expansion joint concrete anchor pedestal west face has spalled, and the exposed rebar has corroded. Because ProShot will be in Nashville to make some shotcrete and concrete repairs, TEG has instructed DEAO to expand ProShot's scope to include the repair of this wall under DES252. Since this review, this item was added to ProShot's scope, and the repairs have been completed.

16. Manhole D
a. Project DES211 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. DEAO recently replaced a badly corroded electrical enclosure mounted on the northern wall with a stainless-steel enclosure.
c. The southern steam piping penetration end can is corroded and in poor condition. TEG has issued drawings to DEAO to replace this end can assembly. DEAO should implement this work as soon as possible.
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 compatible metals, however if the steel piping was galvanized, zinc and copper are not compatible. Additionally, 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. **This item appeared in last year's report.**

17. Manhole D1 Sump
a. This manhole houses two sump pumps that help prevent groundwater (underground stream?) from entering Manhole D nearby.

b. Normally the two sump pumps run continuously, however, during this review, the pumps were not operating, and groundwater infiltration was not evident. DEAO should monitor the groundwater inflow and report any changes to TEG.
c. No deficiencies noted.

18. 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 was recently replaced under DES236.

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. TEG has discussed potential service with two proposed hotels in the area. TEG presented a plan to serve these customers on June 5, 2026, to Metro Water Services (MWS). Customer growth into this area may result in a unique and significant opportunity for DES. A decision to fund service expansions into this area has not occurred to date. Metro's delay in deciding on expanding into this area continues to result in a loss of potential customers, additional revenue for the DES and potentially negatively impacting DES's reputation.

Project DES244 covers the work for the proposed Nashville Fire Department Headquarters. This building is proposed to be located at Second Ave N, and Gay St. Metro has decided to connect this building to the DES. Design coordination continued during the First Quarter. Service to this building is anticipated in late 2028 or early 2029.

TEG continued conversations with the Double Tree Hotel on Union St during the quarter. This building has existing chillers in need of replacement and are planning to connect to DES with chilled water. They are currently in a design phase for the work they will require on the building-side of the service. Additionally, two other existing buildings are in similar situations with needing replacement equipment. DES has proposed service to both buildings during the quarter and continue discussions with these properties.

TEG has been in contact with two existing customer buildings with proposed or ongoing renovations. The discussions have centered around possible expansions or increases in service demands and the execution of new Customer Service Agreements which would extend the service to the buildings for another thirty years.

Conversations continued with the development team for the new TPAC as discussed earlier in this report under the project DES254. The new facility is planned for the East Bank near the Seigenthaler Bridge. This project overlaps some aspects of the work associated with the East Bank expansion (DES251). The expansion onto the East Bank with DES services will potentially permit service connections to many of the proposed developments in the area. The Fallon Group is developing many of the available sites around the new Titans Stadium. Other sites south of Shelby Ave are also being developed which could be served by DES in the future. TEG and MWS have discussed potential services to these sites including Fallon's Parcel C which may be constructed first.

Further expansion and the addition of capacity greater than what is necessary to just provide service to TPAC at this time helps DES gain a headstart in providing services to future customers on the East Bank. Installation of piping now beyond TPAC will reduce the capital cost required for future expansion since many of the planned streets will be under construction and other utilities will be installing piping and services during this period. TEG recommends that Metro invest in the opportunity for the expansion onto the East Bank to reduce future costs.

The loss of Nissan Stadium in FY27 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 East Bank, Bridgestone Arena, or Music City Center if these proposed projects come to fruition.

The expansion of services to match the near-term growth expected for the system will require new service connections and additional distribution piping. In addition, the installation of new capacity at the EGF or at satellite plants will be required in the coming years to satisfy the new demands and maintain the N+1 equipment arrangement. This additional capacity and other changes made at the EGF should include energy efficient improvements to lower the carbon footprint of the system and reduce operating costs for Metro and the other DES customers. TEG is developing a report containing the recommendations for the expansion and replacement of the existing EGF equipment to address these issues. The completion of the report is anticipated in the Second Quarter FY27.

DES has several options for future expansion which include the expansion of services into the Rolling Mill Hill area (Peabody Street Expansion) which can also be interconnected to the existing distribution system north of Korean Veteran's Boulevard. The hydraulic model report (dated September 16, 2025) presented to MWS discussed the advantages of the creation of this loop. TEG presented MWS with an additional report addressing the potential near-term capacity requirements as well as solutions for the capital recovery in the First Quarter FY27. This report shows the short and long-term benefits of expanding the system and improving the efficiency and capacity of the EGF.

TEG recommends Metro pursue the expansion of the EDS through the addition of new piping in key locations to facilitate additional service potential. In addition, the anticipated growth in sales and age of the existing equipment warrant the expansion and replacement of the equipment.

MWS participates with the East Bank development coordination meetings, which consist of engineering consultants and representatives from Metro departments associated with planning, 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. The project number DES251 includes charges for activities related to the marketing and development on the East Bank exclusive of TPAC.

B. Customer Interaction

DEAO's customer service representative (CSR) has occasional communications with some of 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. Customers also occasionally contact TEG with technical questions and issues related to their invoices. Other more significant issues are summarized herein.

- TEG continued their conversations with the Music City Center regarding improvements in the chilled water delta T control. They continue to monitor the operation of their building and make adjustments of their control systems to improve their delta T while satisfying the building's space conditioning requirements and reduce their energy usages. On September 1, the building implemented a better delta T control strategy greatly improving their delta T control and reducing their overall flow rate. TEG has continued to work with building personnel to improve the operation and efficiency of the building. Additional work is anticipated during the Second Quarter as the cooling season ends. TEG continues to monitor their ongoing efforts.
- TEG also met with personnel from the Schermerhorn Symphony to discuss a few issues they have experienced during the summer with their chilled water system. TEG provided recommendations and had several follow-up conversations. Many of the issues discussed should be remedied as the cooling season ends and the building and system demands reduce. However, the building continued to operate effectively, and the building's cooling potential was not impacted.
- In August, Schermerhorn Symphony personnel contacted DEAO after their chilled water flow rate went to zero. DEAO and building personnel determined the building's temperature control valve had shut due to internal wiring issues. Service was restored
- TEG remained in communications with the four buildings currently undergoing or planning renovations. TEG provides some technical support to these customers and has discussed possible operational and contract changes which include the addition of capacity and the implementation of new Customer Service Agreements.
- DEAO responded to a chilled water leak at Hume Fogg. The leak was on the customer-side of their system, and building personnel contacted a contractor to make repairs.
- The Mourya Hotel notified TEG of a steam leak in their building and sent pictures and a short video. TEG discussed the issue with hotel personnel and asked DEAO to investigate the leak further. DEAO determined the leak was small and located on the building-side piping. Building personnel followed-up with DEAO to have their steam system isolated, which was done in September.
- DEAO personnel met with building personnel at the State Capitol building to investigate an issue with a safety relief valve lifting on the chilled water piping. DEAO asked TEG to discuss the issue with building personnel further. TEG

determined the building has a partial two-pipe system where chilled water is used occasionally within the building's hot water system. The safety relief valve is intended to prevent an over-pressurization of the piping if the hot water temperature is too high. After discussing the operation and piping and equipment configuration, building personnel intend to make some operational changes and replace the safety relief valve.

- No additional communications between DEAO and the DES customers were reported during the quarter which were unrelated to distribution maintenance work and isolations of buildings.

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 and fiscal year. 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. It should be noted that DEAO has addressed some of the outstanding EDS items.

Based on the review of the First Quarter FY27 EGF and EDS operations, the following recommendations are made. Several of the following items have been reported in previous Monitoring Reports and remain unresolved.

- TEG continues to recommend to Metro expanding the distribution system and connecting additional customers. TEG also recommends the expansion of the EDS into the Rolling Mill Hill area and the East Bank. Additional capacity at the EGF will be required to satisfy the new demands of the anticipated growth. The equipment installed and other changes made at the EGF should include energy efficient improvements to lower the carbon footprint of the system and reduce operating costs for Metro and the other DES customers. TEG further recommends that Metro invest in the potential for long-term growth and energy efficiency improvements at the EGF and within the EDS.
- Due to the age and current performance of some of the EGF equipment, TEG recommends Metro begin replacing the existing equipment. TEG's specific recommendations addressing the replacement and expansion of the EGF equipment are anticipated in the Second Quarter FY27.
- 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 when valves are found to be non-working. To mitigate this problem, DEAO needs to address the maintenance of the distribution valves and identify which valves need repair or replacement. DEAO has tested some of these isolation valves due to needed maintenance in the EDS. In TEG's opinion, Prudent Utility Practice requires DEAO to develop a written plan to test and evaluate all the chilled water, steam, and condensate distribution valves. With the valve tagging project (DES222), DEAO has a list of the distribution valves, and TEG has directed DEAO to provide a valve maintenance plan. However, TEG has only seen a draft plan to test a portion of the chilled water distribution valves to date. This plan in its entirety needs to be completed and presented as part of DEAO's maintenance obligation to Metro.

- 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. DEAO should notify TEG of instances of corrosion that is beyond mitigation with wire brushing and cold galvanizing paint application.
- 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.