



***Metro Nashville***  
**DISTRICT ENERGY SYSTEM**

*DES Advisory Board Meeting*  
*Second Quarter FY20*  
*February 26, 2020*



# *Agenda*

1. Call to Order
2. Election of Officers
3. Review & Approval of Previous Meeting Minutes
4. Customer Sales
5. Review of DES Contractor Performance
6. Natural Gas Purchasing Update
7. FY20 Costs to Date
8. FY20 Budget
9. Marketing
10. DES RFP Status Update
11. Capital Projects Review & Status
12. Other Board Member Items
13. Adjourn

1. Call to Order
2. Election of Officers

# Advisory Board Members and Terms

## Permanent Members:

Metro Director of Finance

Metro Director of General Services

Executive Director of MDHA

Representative of State of TN

Metro Council Representative (Freddie O'Connell, exp. concurrent with office; Aug 2023)

## Private with Four Year Terms:

ISC Private Customer (Nick Woollen, exp. Aug 2021)

New Private Customer (Eric Schwartz, exp. Aug 2021)

Public Member (Brian Taylor, exp. June 2023)

Public Member (Yuri Cunza, exp. July 2021)

# 3. Review & Approval of Previous Meeting Minutes

# 4. Customer Sales




Summary Table 4: Customer Cost Comparison for the Previous 12 Months

		Steam - Rolling 12 Month			Chilled Water - Rolling 12 Month		
		Jan 2018 - Dec 2018	Jan 2019 - Dec 2019	% Diff.	Jan 2018 - Dec 2018	Jan 2019 - Dec 2019	% Diff.
<b>Private</b>	Cost	\$ 1,497,197	\$ 1,441,747	-3.70%	\$ 3,817,880	\$ 3,707,481	-2.89%
	Usage (lbs or tonhrs)	102,114,226	100,360,047	-1.72%	20,121,301	19,982,794	-0.69%
<b>State</b>	Cost	\$ 1,875,324	\$ 1,741,810	-7.12%	\$ 3,347,508	\$ 3,208,378	-4.16%
	Usage (lbs or tonhrs)	123,945,050	110,602,780	-10.76%	14,146,753	12,712,201	-10.14%
<b>Metro</b>	Cost	\$ 1,903,237	\$ 1,843,393	-3.14%	\$ 5,141,555	\$ 4,972,753	-3.28%
	Usage (lbs or tonhrs)	155,649,051	158,932,509	2.11%	28,732,588	29,127,362	1.37%
<b>Aggregate</b>	Cost	\$ 5,275,758	\$ 5,026,950	-4.72%	\$ 12,306,943	\$ 11,888,612	-3.40%
	Usage (lbs or tonhrs)	381,708,327	369,895,336	-3.09%	63,000,642	61,822,357	-1.87%
	Unit Cost	\$ 13.82	\$ 13.59	-1.7%	\$ 0.195	\$ 0.192	-1.56%

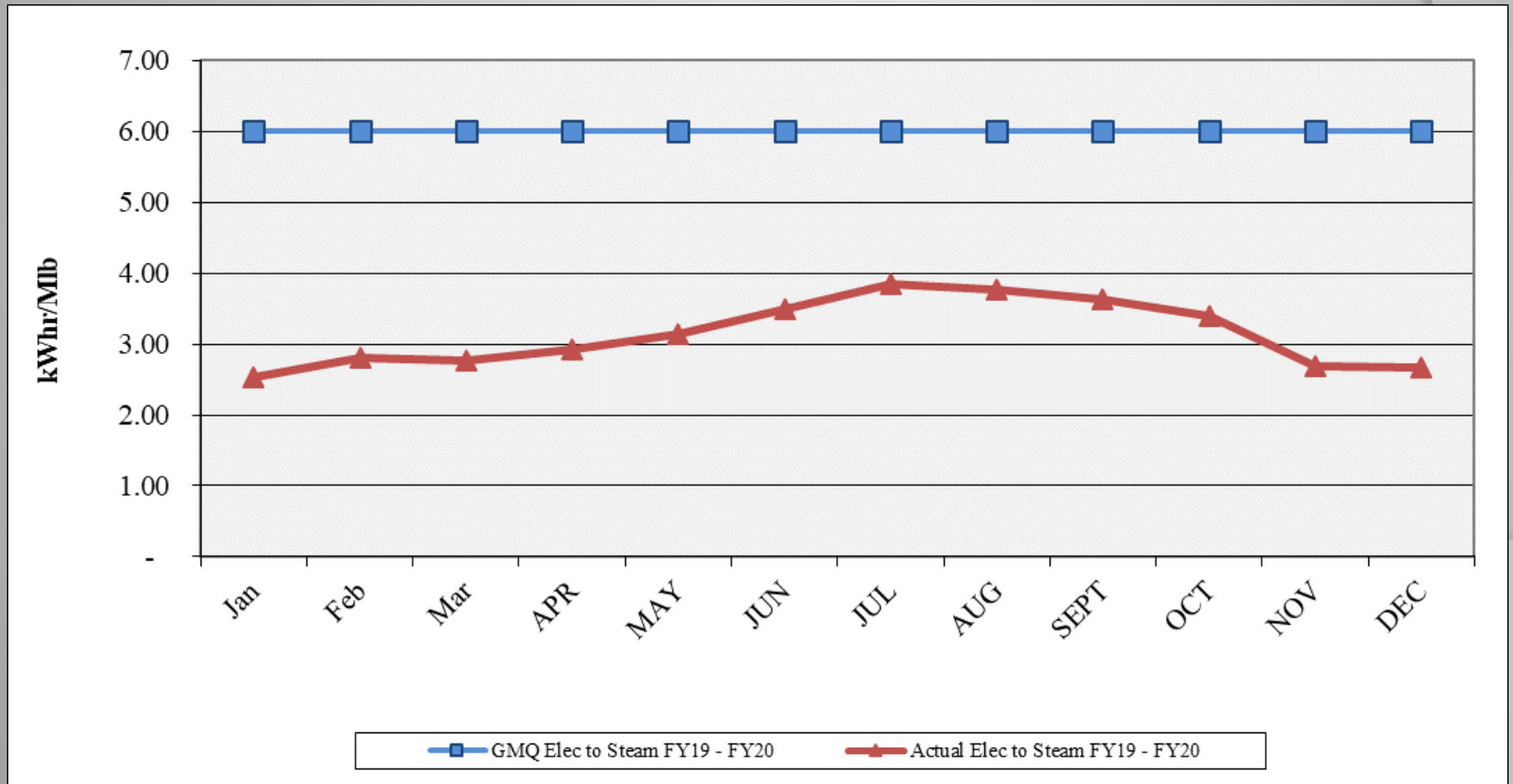
MFA is not included in values shown

## 5. *Review of DES Contractor Performance*

Contractor (CNE) is in compliance with their contractual obligations for FY20 to date.

-  Excellent Performance – No Improvement Necessary
-  Satisfactory Performance – Some Improvement Could Be Made
-  Poor Performance – Much Improvement Necessary

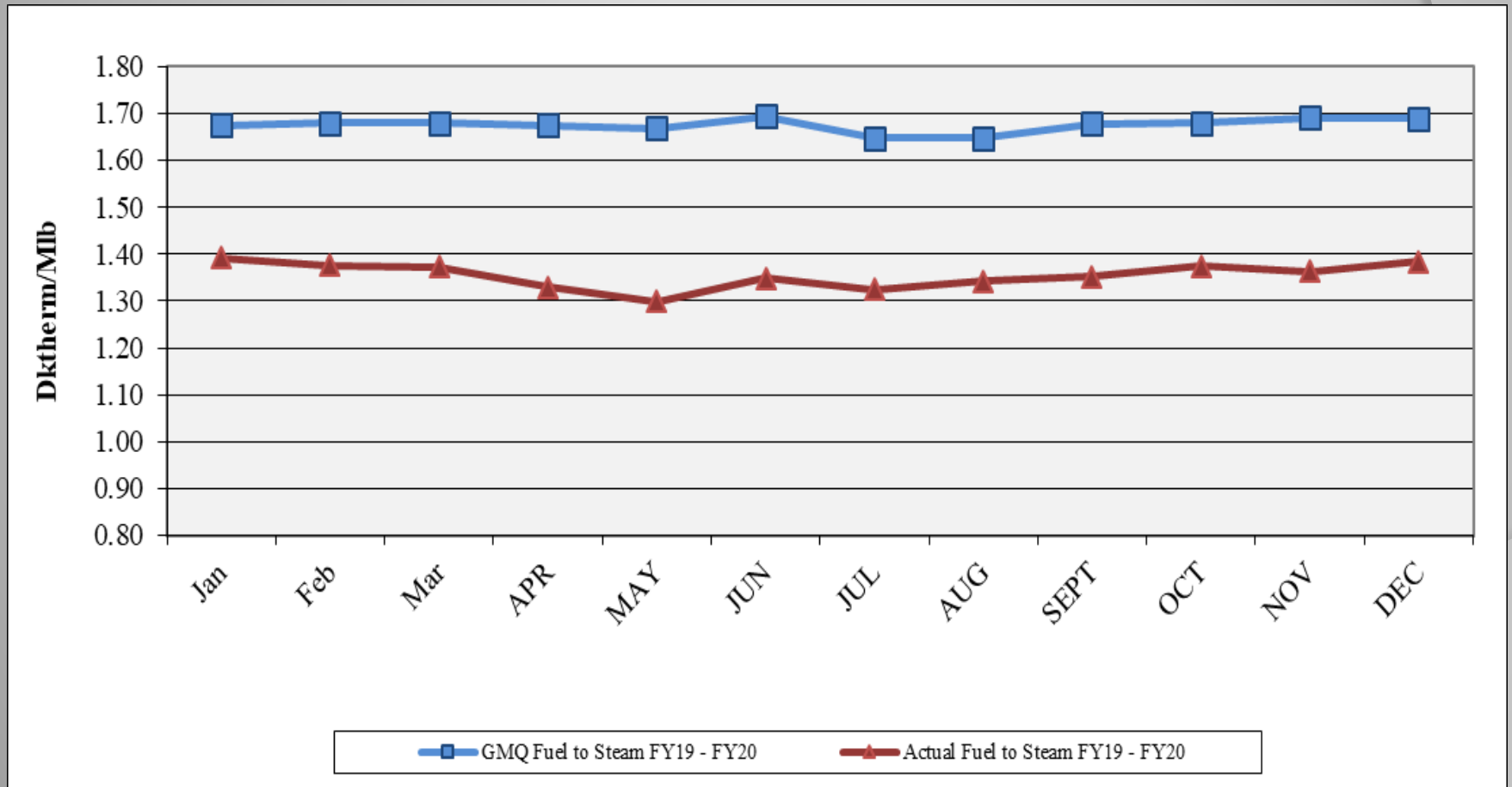
# Performance Measurement FY20: Steam Electric Conversion ●



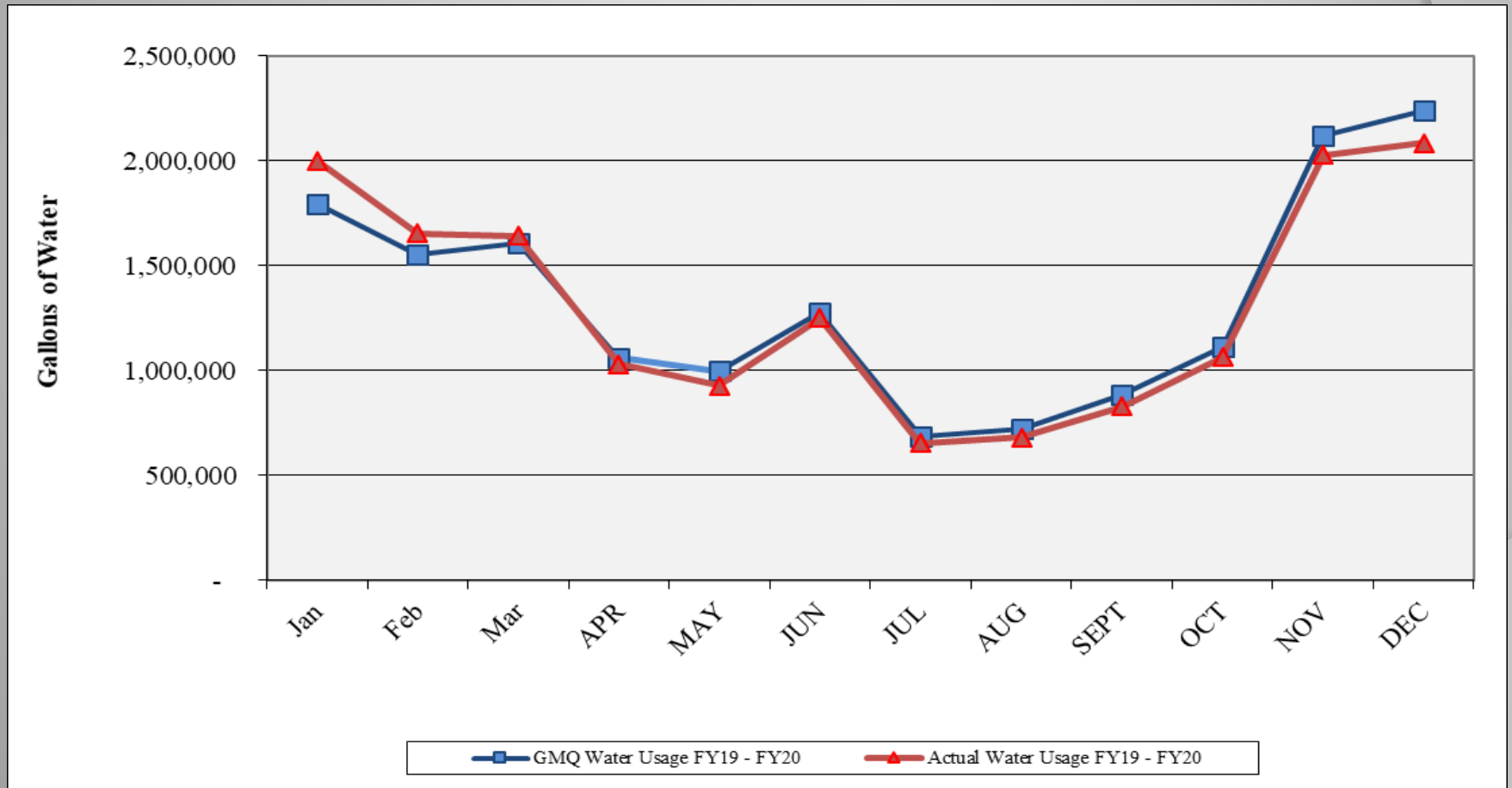
Values of 3.50 to 4.00 in summer months are not unusual.



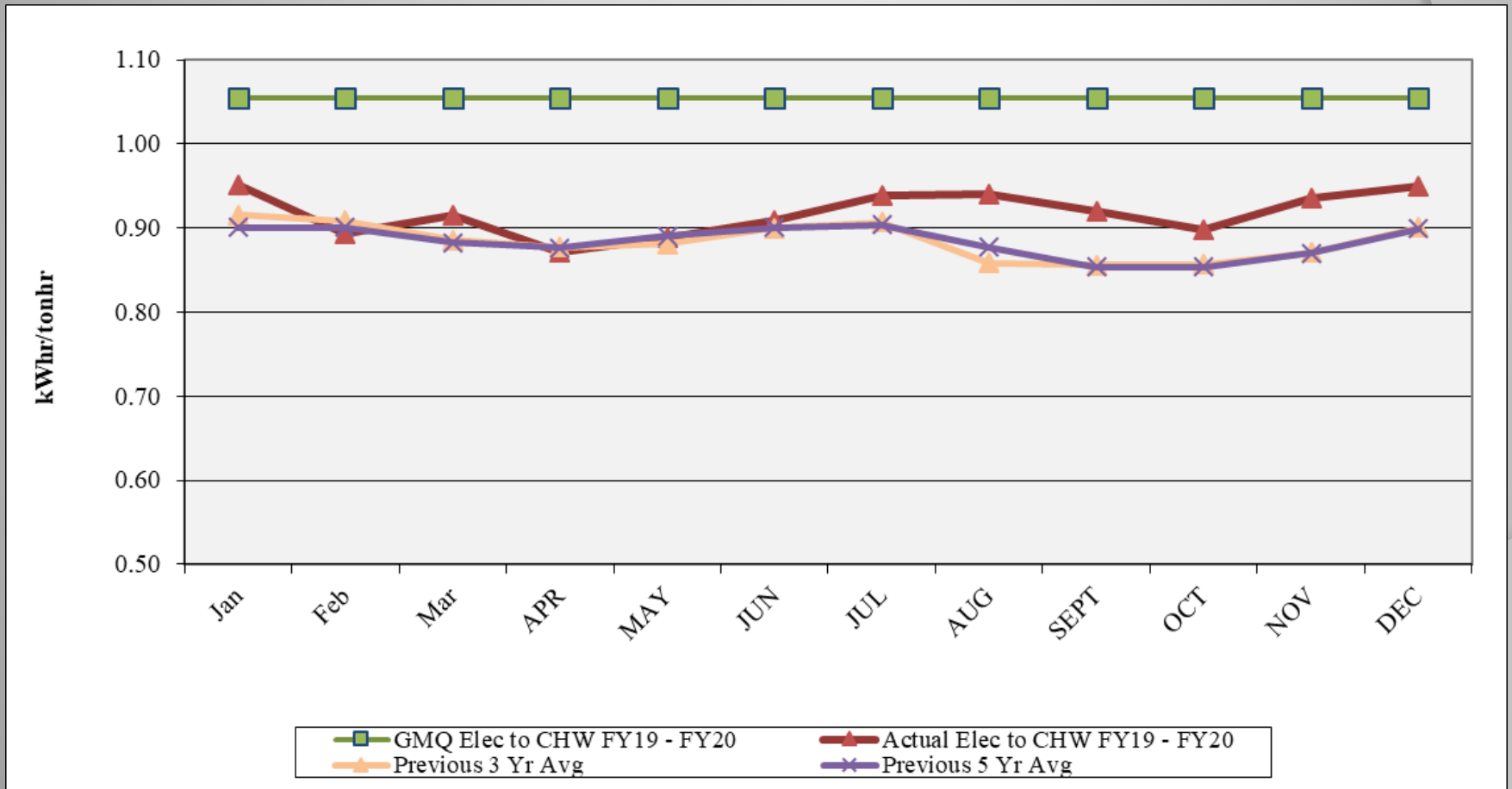
# Performance Measurement FY20: Steam Plant Efficiency



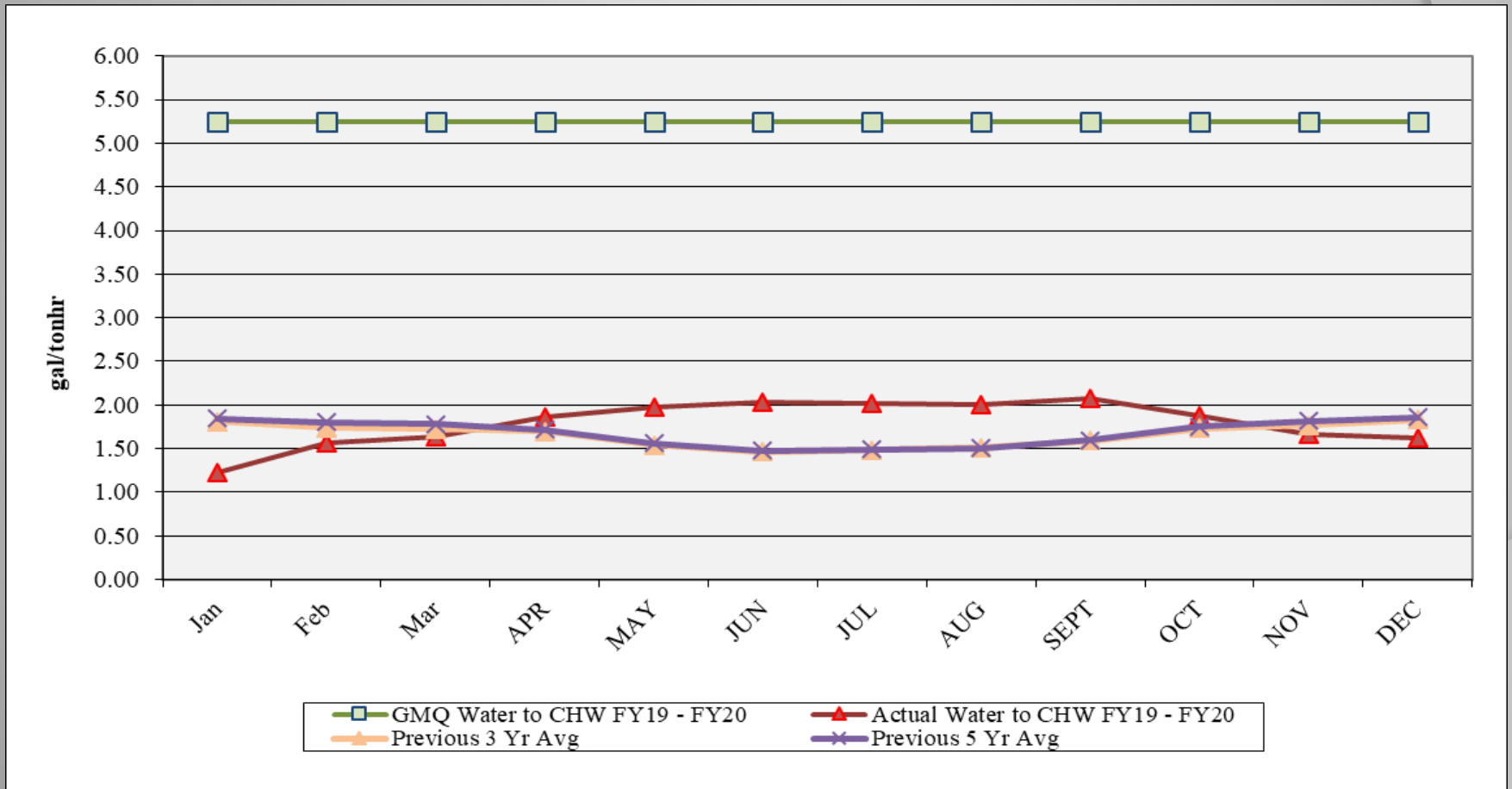
# Performance Measurement FY20: Steam Water Conversion ●



# Performance Measurement FY20: CHW Electric Conversion



# Performance Measurement FY20: CHW Water Conversion ●



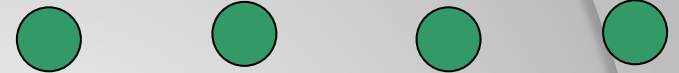


# Water Treatment

Q2FY20    Q1FY20    Q4FY19    Q3FY19

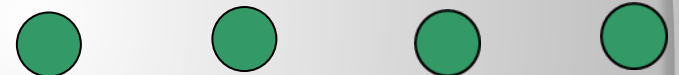
## ❖ Steam and Condensate

- ❖ Corrosion
- ❖ Iron
- ❖ Hardness
- ❖ Chlorine/Sulfite



## ❖ Condensing Water

- ❖ Conductivity
- ❖ Biologicals



## ❖ Chilled Water

- ❖ Hardness
- ❖ Corrosion
- ❖ EGF and Customer Biologicals Good
- ❖ Deposits





# EGF Walkthrough

Q2FY20    Q1FY20    Q4FY19    Q3FY19

✓ Equipment Maintenance	●	●	●	●
✓ Operations	●	●	●	●
✓ Electrical	●	●	●	●
✓ Housekeeping	●	●	●	●
✓ Building Structure	●	●	●	●
✓ Building Exterior and Grounds	●	●	●	●



# EDS Walkthrough

Q2FY20    Q1FY20    Q4FY19    Q3FY19

✓ Vault/Tunnel Housekeeping	●	●	●	●
✓ Maintenance Items				
✓ Insulation Repair/Replacement	●	●	●	●
✓ Water Infiltration	●	●	●	●
✓ Corrosion of Structural Metal Components	●	●	●	●
✓ Safety Items	●	●	●	●

## 6. *Natural Gas Purchasing*

- ❖ Natural Gas Purchasing Review
  - ❖ Table 5: FY20 Gas Spending & Budget Comparison
  - ❖ Figure 5: Actual and Projected Gas Cost Comparison

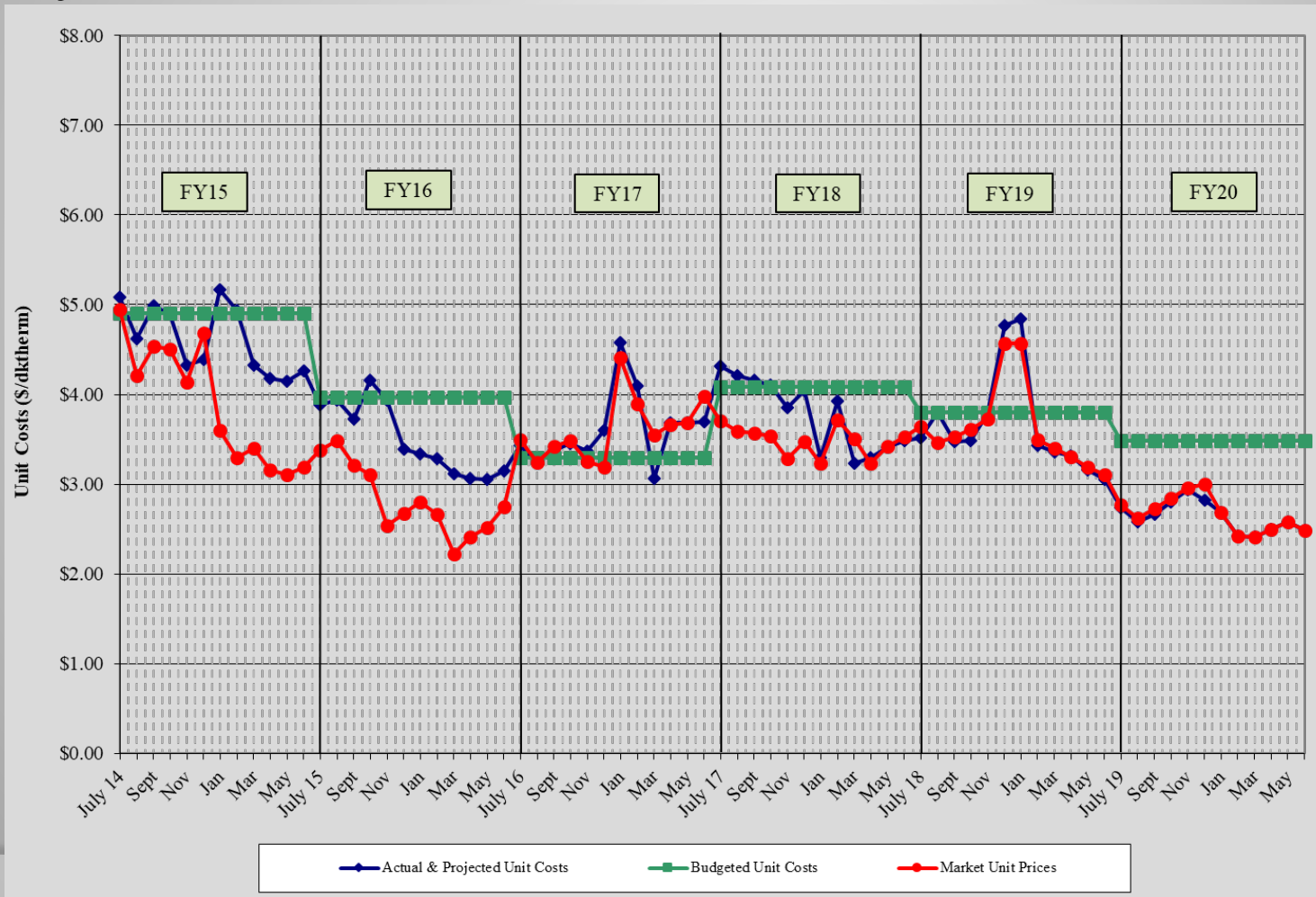


## Table 6: FY20 Gas Spending & Budget Comparison

		Actual FY20 To date (Dec 31)	Budget FY20	Percent Difference
Steam Sendout (Mlbs)		197,427	195,526	1.0%
Fuel Use (Dth) (includes propane)	●	269,053	284,100	-5.3%
Plant Eff (Dth/Mlb)	●	1.363	1.453	-6.2%
Total Gas Cost (includes propane)	●	\$813,640	\$988,669	-17.7%
Unit Cost of Fuel (\$/Dth)	●	\$3.024	\$3.480	-13.1%

Excludes consultant fees and FEA and budget contingency; Includes transportation and actual propane costs and usages

# Figure 6. Actual and Projected Gas Cost Comparison History



## 7. FY20 Costs to Date

Item	FY20 Budget	FY20 Actual to date	Percent of FY20 Budget
FOC's	\$ 4,601,600	\$ 2,315,253	50.31%
Pass Throughs			
Non-Energy	\$ 934,300	\$ 669,167	71.62%
Water/Sewer	\$ 714,000	\$ 316,588	44.34%
Fuel Base	\$ 2,575,700	\$ 847,896	32.92%
Fuel Contingency	\$ 507,000	\$ -	0.00%
Electricity	\$ 5,977,200	\$ 2,771,790	46.37%
ORF Deposit	\$ -	\$ -	
Debt Service	\$ 5,079,200	\$ 2,383,398	46.92%
<b>Total Expenses</b>	<b>\$ 20,389,000</b>	<b>\$ 9,304,093</b>	<b>45.63%</b>
<b>Total Revenues</b>	<b>\$ 19,070,500</b>	<b>\$ 8,753,255</b>	<b>45.90%</b>
<b>Metro Funding</b>	<b>\$ 1,318,500</b>	<b>\$ 550,838</b>	<b>41.78%</b>

Actual Costs and Revenues to Date include FY19 True-up Items.

## 8. FY20 Budget

Item	FY19 Budget	FY20 Budget	Percent Change From FY19 Budget
FOC's	\$ 4,804,000	\$ 4,601,600	-4.21%
Pass Throughs			
Non-Energy	\$ 1,180,500	\$ 934,300	-20.86%
Water/Sewer	\$ 751,900	\$ 714,000	-5.04%
Natural Gas Base	\$ 2,173,300	\$ 2,575,700	18.52%
Natural Gas Contingency	\$ 816,400	\$ 507,000	-37.90%
Electricity	\$ 5,646,100	\$ 5,977,200	5.86%
ORF Deposit	\$ -	\$ -	
Debt Service	\$ 5,420,200	\$ 5,079,200	-6.29%
<b>Total Expenses</b>	<b>\$ 20,792,400</b>	<b>\$ 20,389,000</b>	<b>-1.94%</b>
<b>Total Revenues</b>	<b>\$ 19,152,100</b>	<b>\$ 19,070,500</b>	<b>-0.43%</b>
<b>Metro Funding</b>	<b>\$ 1,640,300</b>	<b>\$ 1,318,500</b>	<b>-19.62%</b>

## 9. *Marketing*

### Remaining Capacity for Sale (approximate)

- 2,429 tons of chilled water
- 24,622 pph of steam

### New and Potential Customers

- Hyatt Centric (3<sup>rd</sup> Ave and Molloy)
  - CSA has been executed
  - 255-ton contract capacity; no steam
  - Service during construction Spring 2020; April 2021 opening
- Service to Lot K
  - Site directly to the east of EGF
  - Early stages of communication
  - Potential ~1,000 ton and ~15,000 pph

## *Marketing (con't)*

- Service to New KVB Hotels
  - Two hotels with retail space; discussions favorable
  - Site is between 1<sup>st</sup> Ave S, 2<sup>nd</sup> Ave S, KVB and Peabody St
  - Potential ~1,400 tons and ~20,000 pph
- Peabody St Hotel
  - Early stages of communications
  - Potential 2,000 to 3,000 tons
- Added DES to List of Utilities on Metro Website
- New Development North of KVB
  - Early stages of communications
  - Potential ~1,100 tons and ~15,000 pph

## *Customer Changes of Ownership*

- City Center (511 Union) from 511 Union Nashville, LLC to CPVF III NCC LLC
- Parkway Towers (404 James Robertson) from PHR Parkway, LLC to 404 James Robertson Prop, LLC

## *Customer Changes of Management*

- Viridian Condominiums
- Sheraton Grand Nashville Hotel

# *10. DES RFP Status Update*

DES-139

- Constellation's appeal on hold
- Sale to Engie on hold as Metro evaluates options



# 11. Capital Expenditure Update

	<b>Spent to End of FY19</b>	<b>FY20 Spending</b>	<b>Balance to Date (01/16/20)</b>
R&I Projects	\$3,675,354	\$158,297	\$73,184
49109-2010 Bond	\$2,596,698	\$1,227	\$7,991
49107-DES Infrastructure Fund	\$8,497,779	\$2,182	\$39
49116-DES Infrastructure Fund	\$822,320	\$558,337	\$379,344
Total	\$15,592,151	\$720,043	\$460,558

# *Capital Projects Review*

## Active Capital Projects

- DES 133.1: Broadway Tunnel Damage Recovery: ongoing
- DES 135: Closed during 2<sup>nd</sup> Qtr FY20
- DES 152: MH A & M Coating Repairs – postponed until FY20; anticipate bidding in 2<sup>nd</sup> or 3<sup>rd</sup> Qtr FY20
- DES 153: MH L Repairs – additional repairs may be added to scope; to be bid 2<sup>nd</sup> or 3<sup>rd</sup> Qtr FY20
- DES 154: Manhole K Repairs – postponed until FY20; will review priority relative to other projects



# *Capital Projects Review*

## Active Capital Projects - continued

- DES 157: MH 9 Repairs – bid in 1<sup>st</sup> Qtr FY20; construction in-progress; anticipated completion during 3<sup>rd</sup> Qtr FY20
- DES 159: MH B2 Repairs – bid in 1<sup>st</sup> Qtr FY20; construction in-progress; anticipated completion during 3<sup>rd</sup> Qtr FY20
- DES 160: 5<sup>th</sup> + Broadway Service Connection – connections for service completed; awaiting install of instruments
- DES 161: MH S6 Insulation – postponed until FY20; anticipate bidding during 2<sup>nd</sup> or 3<sup>rd</sup> Qtr FY20



# *Capital Projects Review*

## Active Capital Projects - continued

- DES 162: Hyatt Centric Service – wet-taps complete; pipe install to be completed during 3<sup>rd</sup> Qtr FY20
- DES 163: MDHA Parcel K Service – negotiations with new customer in early stages
- DES 168: DES Service to 1<sup>st</sup> and KVB Hotels – negotiations with new customer in early stages
- DES 169: MH 20 Repairs – pipe supports corroded, require replacement; bid during 2<sup>nd</sup> Qtr FY20; work anticipated during 3<sup>rd</sup> Qtr FY20



# *Capital Projects Review*

## Capital Projects in Close-out/Closed

- DES135: Chilled Water Leak Repairs
- DES170: Manhole 18 Anchor Repairs – Phase II

## *12. Other Board Member Items*

## *13. Adjourn*

- *Advisory Board Meeting Schedule*
- FY20 – 3<sup>rd</sup> Quarter Meeting – May 21, 2020
- FY20 – 4<sup>th</sup> Quarter Meeting – August 20, 2020
- FY21 – 1<sup>st</sup> Quarter Meeting – November 19, 2020
- FY21 – 2<sup>nd</sup> Quarter Meeting – February 18, 2021