



Metro Nashville
DISTRICT ENERGY SYSTEM

DES Advisory Board Meeting
Fourth Quarter FY19
August 15, 2019



Agenda

1. Call to Order
2. Review & Approval of Previous Meeting Minutes
3. Customer Sales
4. Review of DES Contractor Performance
5. Natural Gas Purchasing Update
6. FY19 Costs to Date
7. FY20 Budget
8. Marketing
9. DES RFP Status Update
10. Capital Projects Review & Status
11. Other Board Member Items
12. Adjourn

1. Call to Order
2. Review & Approval of Previous Meeting Minutes

3. Customer Sales




Summary Table 3: Customer Cost Comparison for the Previous 12 Months

		Steam - Rolling 12 Month			Chilled Water - Rolling 12 Month		
		July 2017 - June 2018	July 2018 - June 2019	% Diff.	July 2017 - June 2018	July 2018 - June 2019	% Diff.
Private	Cost	\$ 1,442,405	\$ 1,549,041	7.39%	\$ 3,749,912	\$ 3,801,301	1.37%
	Usage (lbs or tonhrs)	99,640,278	102,454,396	2.82%	19,215,465	19,830,517	3.20%
State	Cost	\$ 1,780,812	\$ 1,881,143	5.63%	\$ 3,346,892	\$ 3,297,782	-1.47%
	Usage (lbs or tonhrs)	114,928,533	118,780,686	3.35%	13,769,352	13,473,126	-2.15%
Metro	Cost	\$ 1,836,383	\$ 1,983,655	8.02%	\$ 4,985,310	\$ 5,123,435	2.77%
	Usage (lbs or tonhrs)	152,358,885	158,062,415	3.74%	26,929,639	28,673,437	6.48%
Aggregate	Cost	\$ 5,059,600	\$ 5,413,839	7.00%	\$ 12,082,113	\$ 12,222,518	1.16%
	Usage (lbs or tonhrs)	366,927,696	379,297,497	3.37%	59,914,456	61,977,080	3.44%
	Unit Cost	\$ 13.79	\$ 14.27	3.5%	\$ 0.202	\$ 0.197	-2.20%

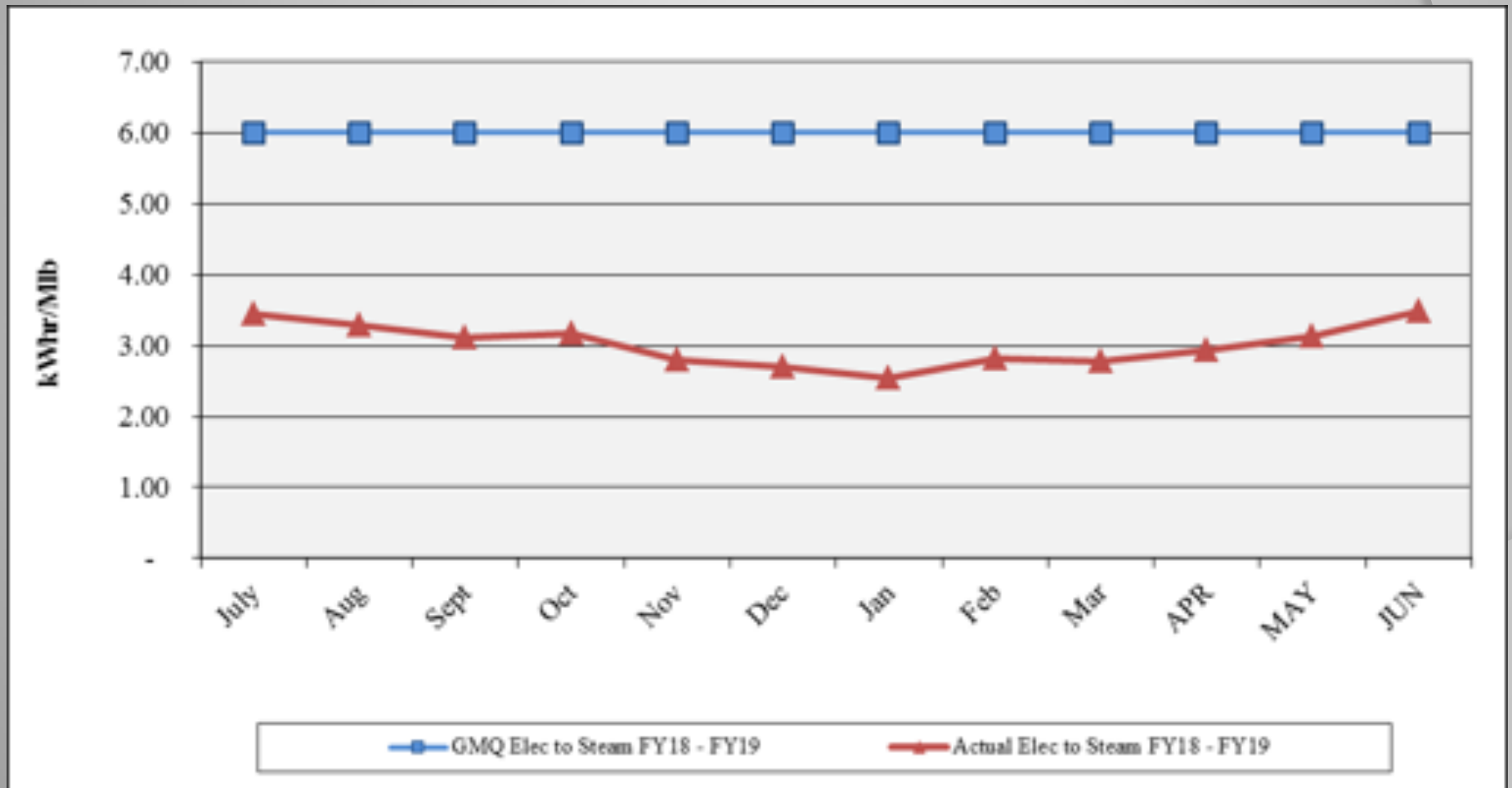
MFA not included in values shown

4. *Review of DES Contractor Performance*

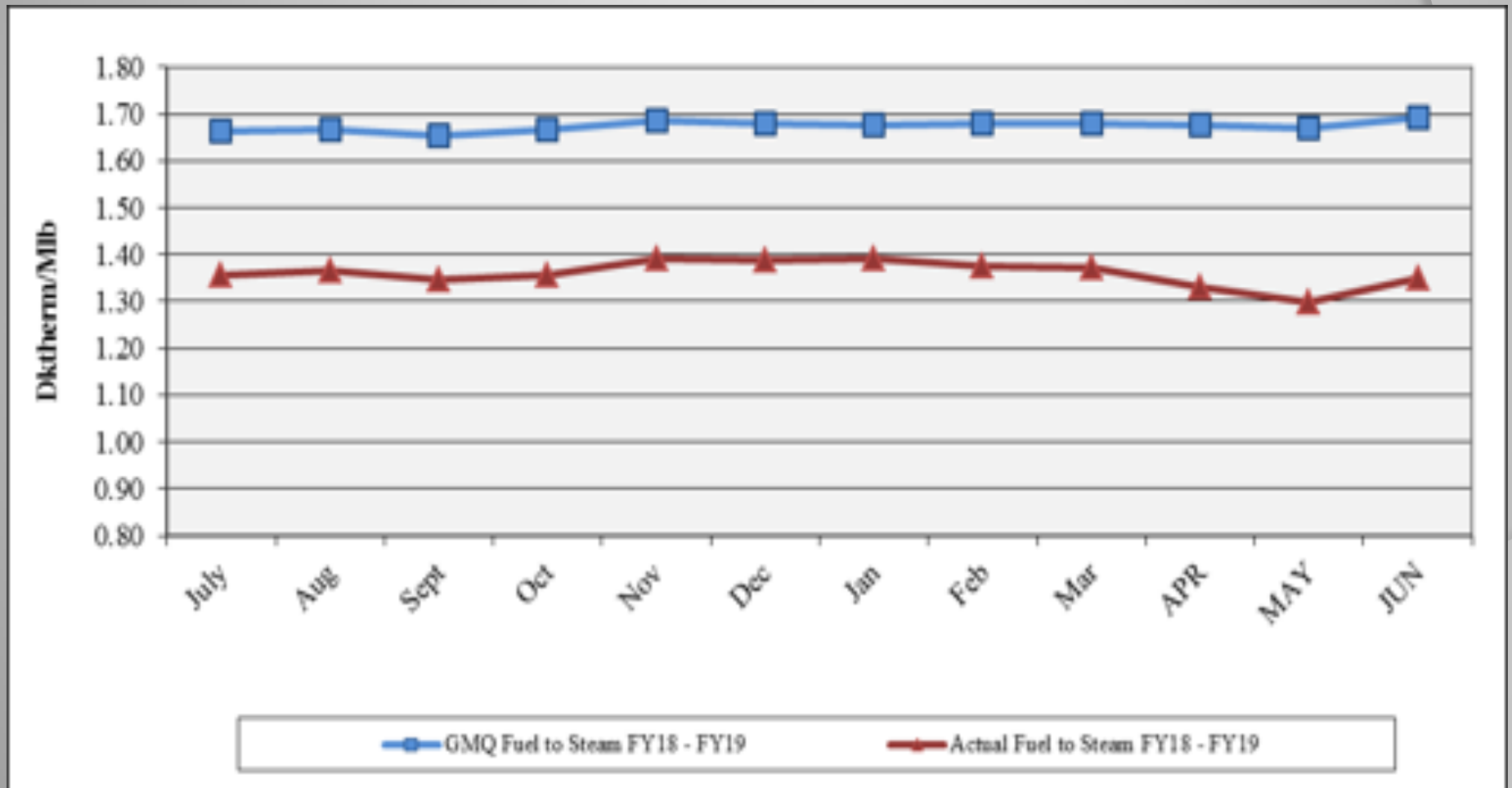
Contractor (CNE) is in compliance with their contractual obligations for FY19 to date.

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

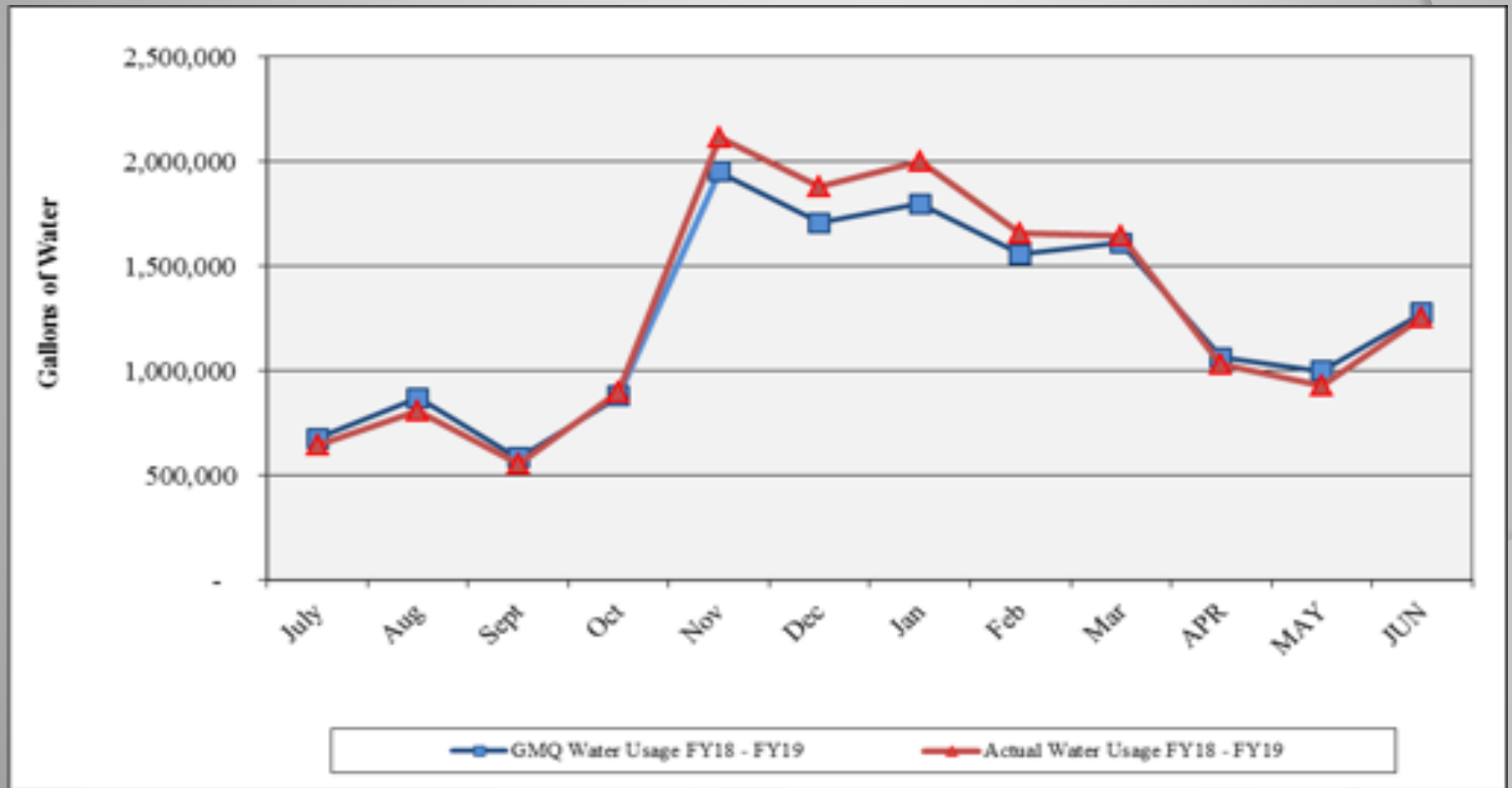
Performance Measurement FY19: Steam Electric Conversion ●



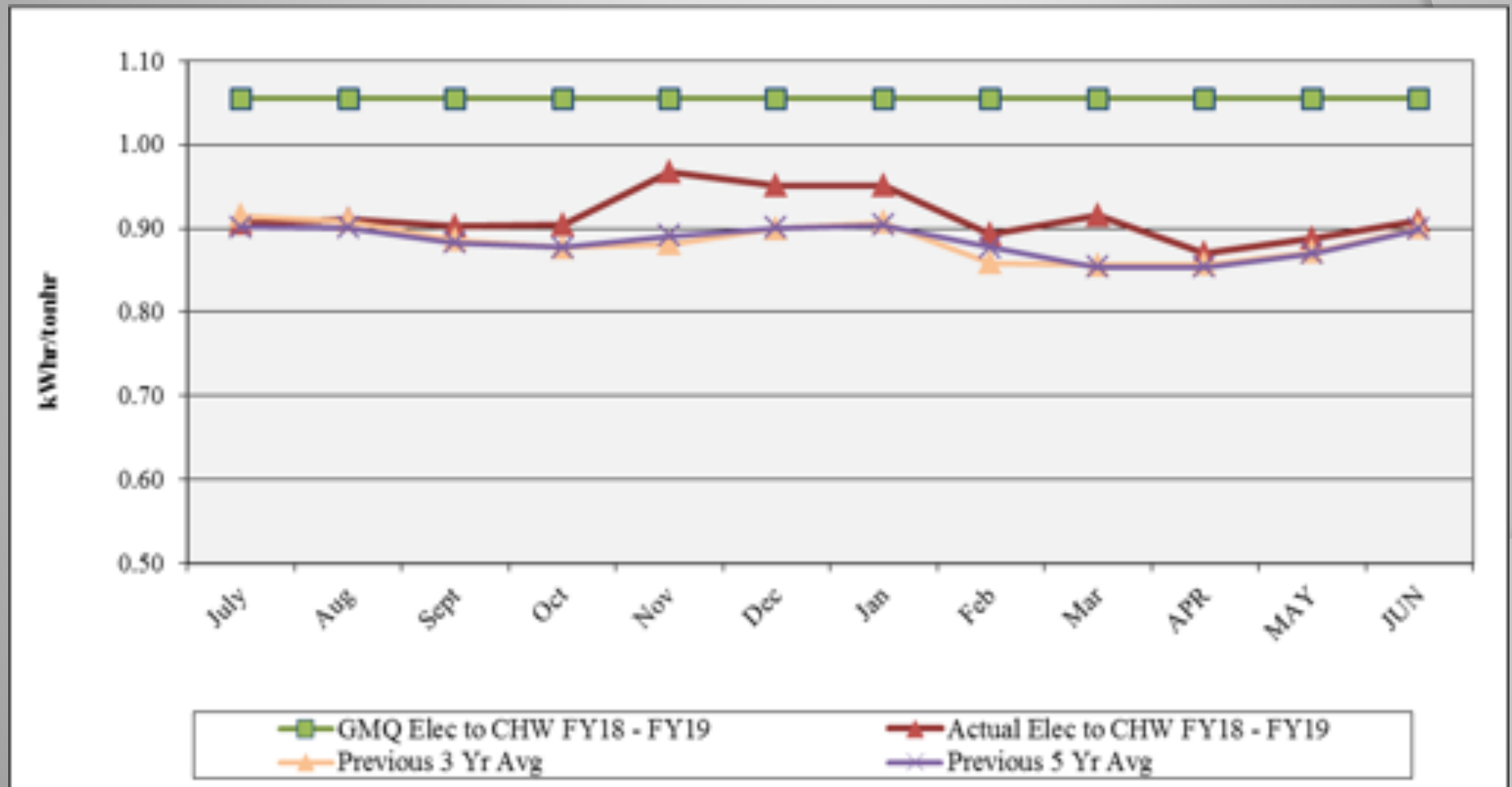
Performance Measurement FY19: Steam Plant Efficiency



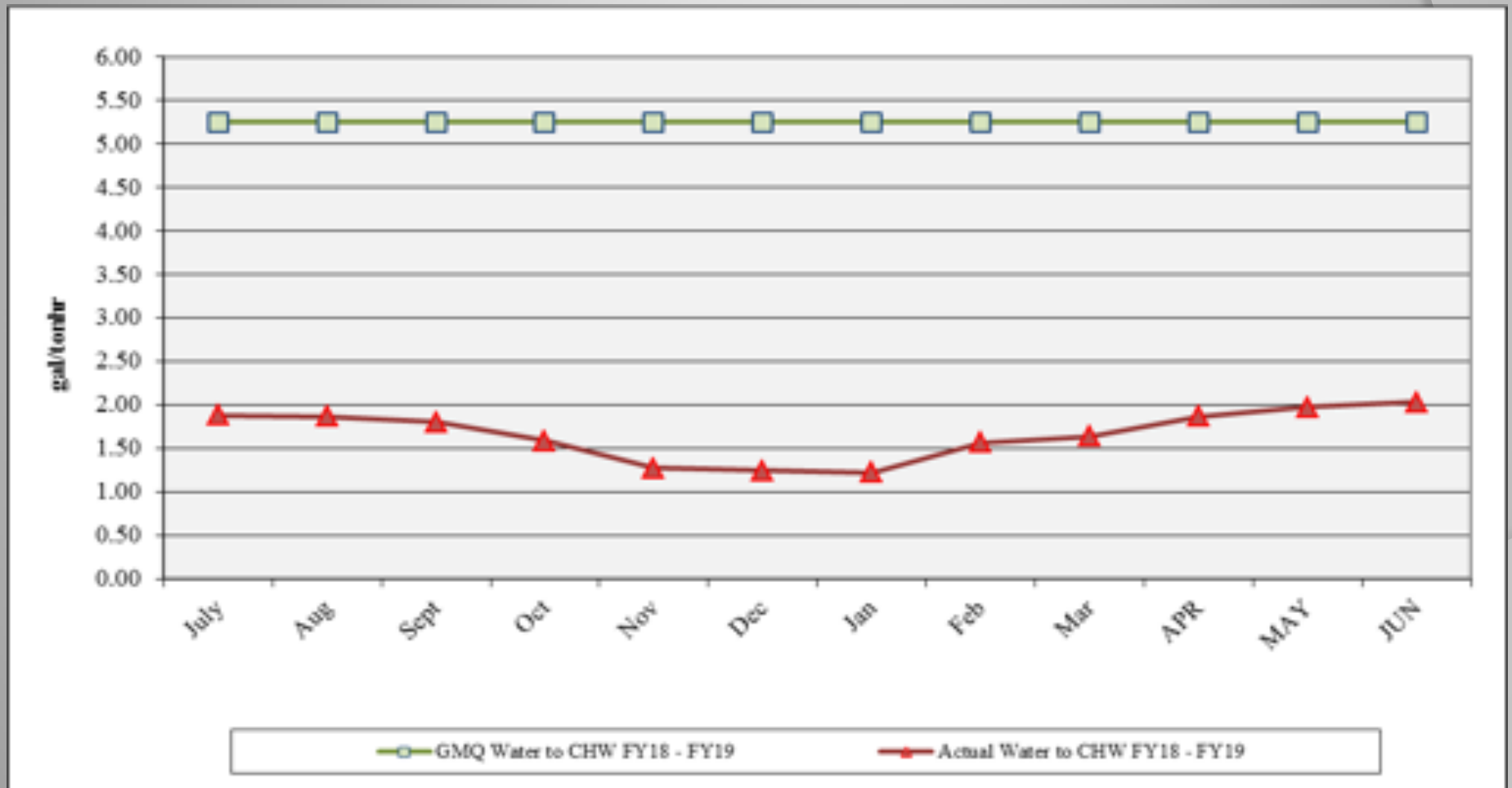
Performance Measurement FY19: Steam Water Conversion



Performance Measurement FY19: CHW Electric Conversion



Performance Measurement FY19: CHW Water Conversion ●



Water Treatment

❖ Steam and Condensate

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

Q4

Q3



❖ Condensing Water

- ❖ Conductivity
- ❖ Biologicals



❖ Chilled Water

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





EGF Walkthrough

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

Q4

Q3





EDS Walkthrough

	Q4	Q3
✓ Vault/Tunnel Housekeeping	●	●
✓ Maintenance Items	●	●
✓ Insulation Repair/Replacement	●	●
✓ Water Infiltration	●	●
✓ Corrosion of Structural Metal Components	●	●
✓ Safety Items	●	●

5. *Natural Gas Purchasing*

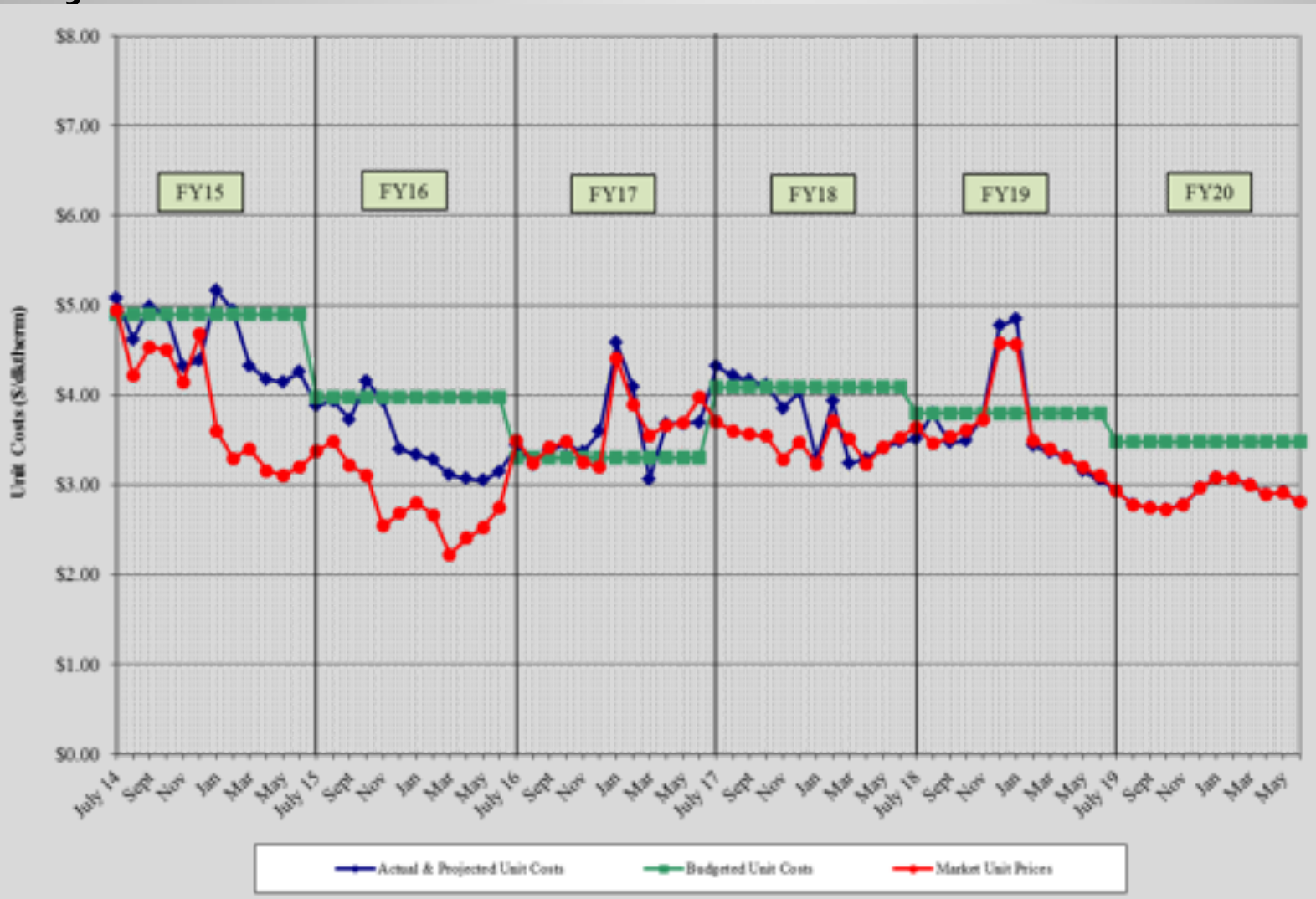
- ❖ Natural Gas Purchasing Review
 - ❖ Table 5: FY19 Gas Spending & Budget Comparison
 - ❖ Figure 5: Actual and Projected Gas Cost Comparison

Table 5: FY19 Gas Spending & Budget Comparison

	Actual FY19 To date (June 30)	Budget FY19	Percent Difference
Steam Sendout (Mlbs)	439,458	409,396	7.3%
Fuel Use (Dth) (includes propane) ●	601,044	594,853	1.0%
Plant Eff (Dth/Mlb) ●	1.368	1.453	-5.8%
Total Gas Cost (includes propane) ●	\$2,295,533	\$2,259,076	1.6%
Unit Cost of Fuel (\$/Dth) ●	\$3.819	\$3.798	0.6%

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

Figure 5. Actual and Projected Gas Cost Comparison History



6. FY19 Costs to Date

Item	FY18 Actual	FY19 Budget	FY19 Actual to date	Percent of FY19 Budget
FOC's	\$ 4,664,100	\$ 4,804,000	\$ 4,654,500	96.89%
Pass Throughs				
Non-Energy	\$ 1,201,400	\$ 1,180,500	\$ 1,178,700	99.85%
Water/Sewer	\$ 643,200	\$ 751,900	\$ 694,800	92.41%
Natural Gas Base	\$ 2,154,800	\$ 2,173,300	\$ 2,173,300	100.00%
Natural Gas Contingency	\$ -	\$ 816,400	\$ 241,800	29.62%
Electricity	\$ 5,256,800	\$ 5,646,100	\$ 5,099,000	90.31%
ORF Deposit	\$ -	\$ -	\$ -	
Debt Service	\$ 5,473,800	\$ 5,420,200	\$ 5,419,900	99.99%
Total Expenses	\$ 19,394,100	\$ 20,792,400	\$ 19,462,000	93.60%
Total Revenues	\$ 17,171,500	\$ 19,152,100	\$ 17,825,900	93.08%
Metro Funding	\$ 2,222,600	\$ 1,640,300	\$ 1,640,300	100.00%

Actual Costs to Date do not include True-up Items.

7. 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	\$ 934,329	-20.85%
Water/Sewer	\$ 751,900	\$ 714,000	-5.04%
Natural Gas Base	\$ 2,173,300	\$ 2,202,900	1.36%
Natural Gas Contingency	\$ 816,400	\$ 879,771	7.76%
Electricity	\$ 5,646,100	\$ 5,977,200	5.86%
ORF Deposit	\$ -	\$ -	
Debt Service	\$ 5,420,200	\$ 5,079,200	-6.29%
Total Expenses	\$ 20,792,400	\$ 20,389,000	-1.94%
Total Revenues	\$ 19,152,100	\$ 19,070,500	-0.43%
Metro Funding	\$ 1,640,300	\$ 1,318,500	-19.62%

8. *Marketing*

New and Potential Customers

- Hyatt Centric (3rd Ave and Molloy)
 - CSA execution soon
 - 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
 - Site is between 1st Ave S, 2nd Ave S, KVB and Peabody St
 - Early discussions are favorable
 - Potential ~1,400 tons and ~20,000 pph
 - New service along Peabody St
- Four Seasons
 - Early stages of communication
 - Site is on 1st Ave S between Demonbreun and Shelby Sts
 - Potential ~1,100 tons and ~10,000 pph

9. *DES RFP Status Update*

DES-139

- Pursuant to Metro's Award to Engie, Engie is continuing with their due diligence efforts
- Constellation appeal update
- Engie has completed the task of obtaining customer consents for the sale
- Engie developing plan to address TN Utilities Commission regulation
- Engie and Metro negotiating purchase contract

10. Capital Expenditure Update

	Spent to End of FY18	FY19 Spending	Balance to Date (06/30/19)
R&I Projects	\$3,353,083	\$322,271	\$63,714
49109-2010 Bond	\$2,497,999	\$98,700	\$9,217
49107-DES Infrastructure Fund	\$8,466,205	\$31,573	\$2,221
49116-DES Infrastructure Fund	\$0	\$637,891	\$1,122,109
Total	\$14,317,287	\$1,090,435	\$1,197,261

Capital Projects Review

Active Capital Projects

- DES 133.1: Broadway Tunnel Damage Recovery
- DES 135: CHW Leak at 5th & Union: ongoing; leak discovered at 5th/Union; repairs made; positive impact at JK Polk
- DES 151: MH 23 Repairs – in close-out
- DES 152: MH A & M Coating Repairs – postponed until FY20; anticipate bidding in 1st Qtr FY20
- DES 153: MH L Repairs – finalizing design; to be bid 1st 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 1st Qtr FY20; work anticipated to be completed during same quarter
- DES 158: MH 18A Repairs and MH 18 Anchor Repair – construction completed; MH 18A closed 4th Qtr FY19; MH 18 requires additional work to take place during the summer under new project number; in design
- DES 159: MH B2 Repairs – bid in 1st Qtr FY20; work anticipated to be completed during same quarter
- DES 160: 5th + Broadway Service Connection – connections for service completed; awaiting install of instruments
- DES 161: MH S6 Insulation – postponed until FY20; anticipate bidding during 1st Qtr FY20



Capital Projects Review

Active Capital Projects - continued

- DES 162: Hyatt Centric Service – CSA in progress; line extension in bid phase
- DES 163: MDHA Parcel K Service – negotiations with new customer in early stages
- DES 164: Broadway Tunnel Repairs – closed
- DES 165: AA Birch Tunnel Repairs – closed
- DES 166: Misc Tunnel Repairs - closed
- DES 168: DES Service to 1st and KVB Hotels – negotiations with new customer in early stages
- DES 169: MH 20 Repairs – pipe supports corroded, require replacement; to be bid 1st Qtr FY20

Capital Projects Review

Capital Projects in Close-out/Closed

- DES 151: MH 23 Repairs
- DES 164: Broadway Tunnel Repairs
- DES 165: AA Birch Tunnel Repairs
- DES 166: Miscellaneous Tunnel Repairs

11. Other Board Member Items

12. Adjourn

- *Advisory Board Meeting Schedule*
- FY20 – 1st Quarter Meeting – November 21, 2019
- FY20 – 2nd Quarter Meeting – February 20, 2020
- FY20 – 3rd Quarter Meeting – May 21, 2020
- FY20 – 4th Quarter Meeting – August 20, 2020