



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

***DES Advisory Board Meeting***  
***Third Quarter FY19***  
***May 16, 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. Marketing
8. FY19 Budget Update
9. DES RFP 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		
		Apr 2017 - Mar 2018	Apr 2018 - Mar 2019	% Diff.	Apr 2017 - Mar 2018	Apr 2018 - Mar 2019	% Diff.
<b>Private</b>	Cost	\$ 1,441,097	\$ 1,535,640	6.56%	\$ 3,561,185	\$ 3,833,961	7.66%
	Usage (lbs or tonhrs)	97,795,089	102,772,921	5.09%	17,809,005	20,131,792	13.04%
<b>State</b>	Cost	\$ 1,753,367	\$ 1,902,823	8.52%	\$ 3,323,812	\$ 3,353,126	0.88%
	Usage (lbs or tonhrs)	108,058,112	123,187,618	14.00%	13,455,673	14,043,048	4.37%
<b>Metro</b>	Cost	\$ 1,913,849	\$ 1,977,403	3.32%	\$ 5,052,810	\$ 5,216,003	3.23%
	Usage (lbs or tonhrs)	151,010,797	160,265,362	6.13%	27,076,450	29,132,008	7.59%
<b>Aggregate</b>	Cost	\$ 5,108,313	\$ 5,415,865	6.02%	\$ 11,937,808	\$ 12,403,090	3.90%
	Usage (lbs or tonhrs)	356,863,998	386,225,901	8.23%	58,341,128	63,306,848	8.51%
	Unit Cost	\$ 14.31	\$ 14.02	-2.0%	\$ 0.205	\$ 0.196	-4.25%

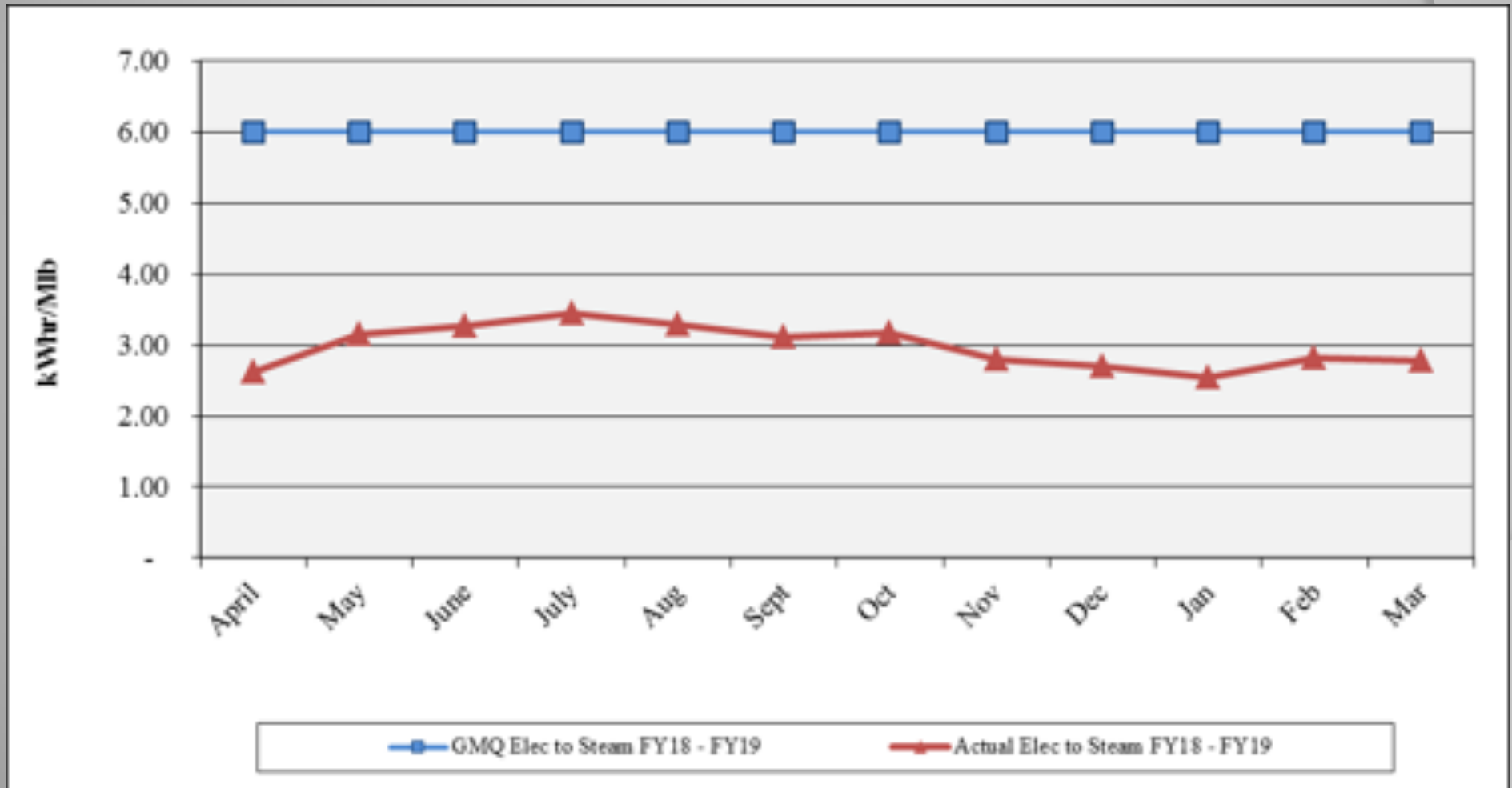
MFA not included in values shown; 2<sup>nd</sup> quarter billing adjustment included

## 4. *Review of DES Contractor Performance*

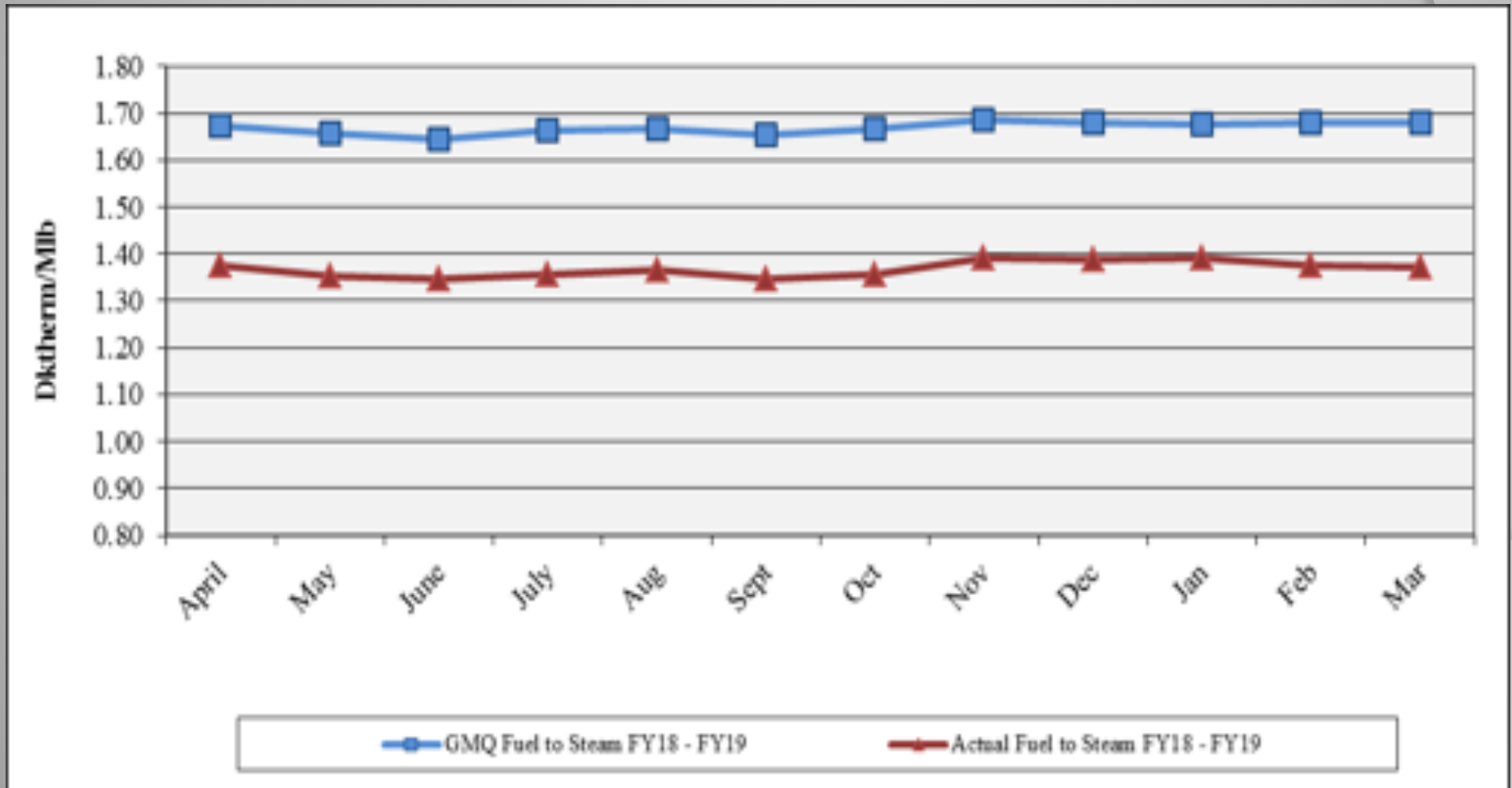
Contractor (CNE) is in compliance with their contractual obligations for FY19 to date.

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

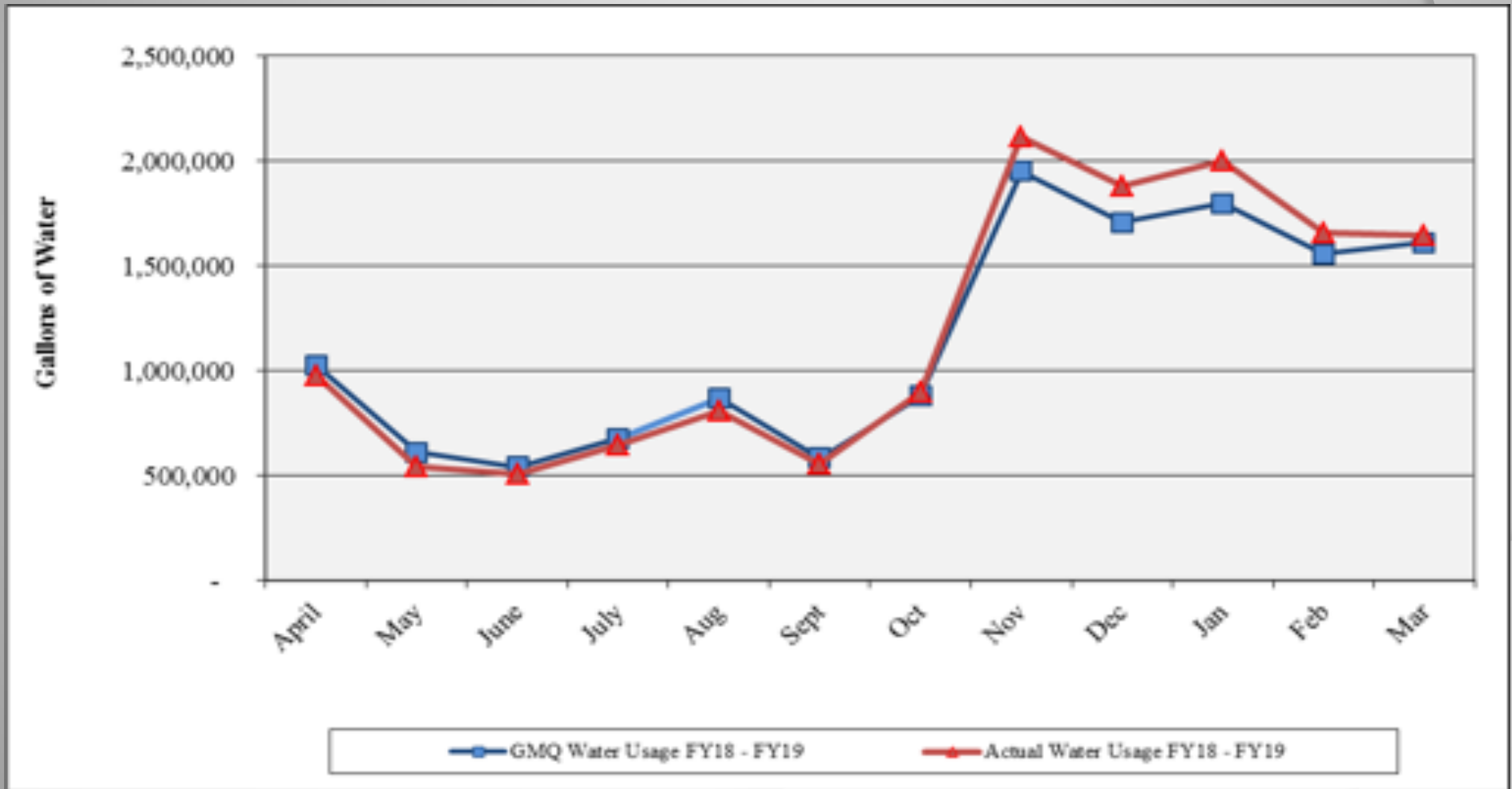
# Performance Measurement FY19: Steam Electric Conversion ●



# Performance Measurement FY19: Steam Plant Efficiency

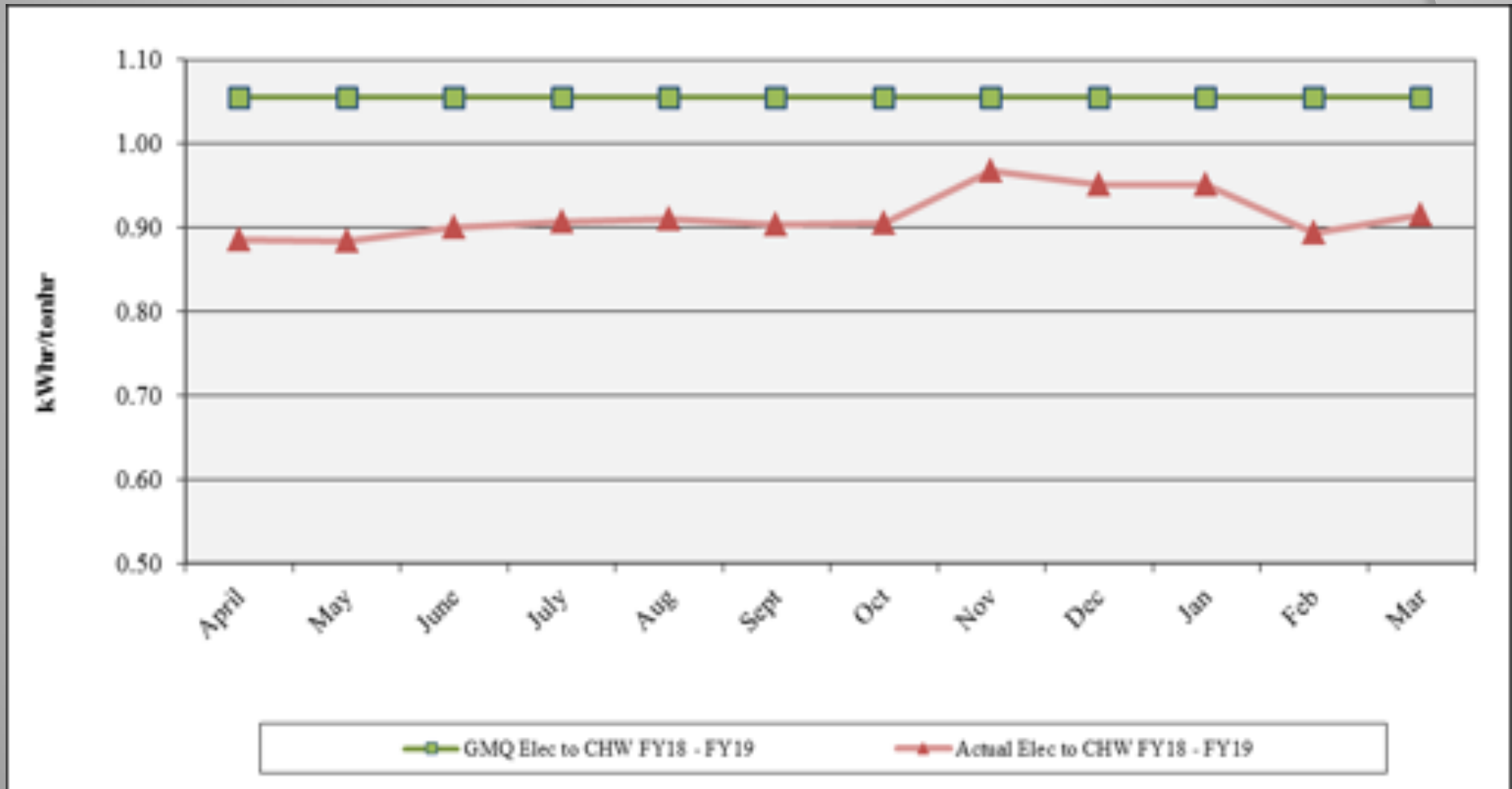


# Performance Measurement FY19: Steam Water Conversion ●

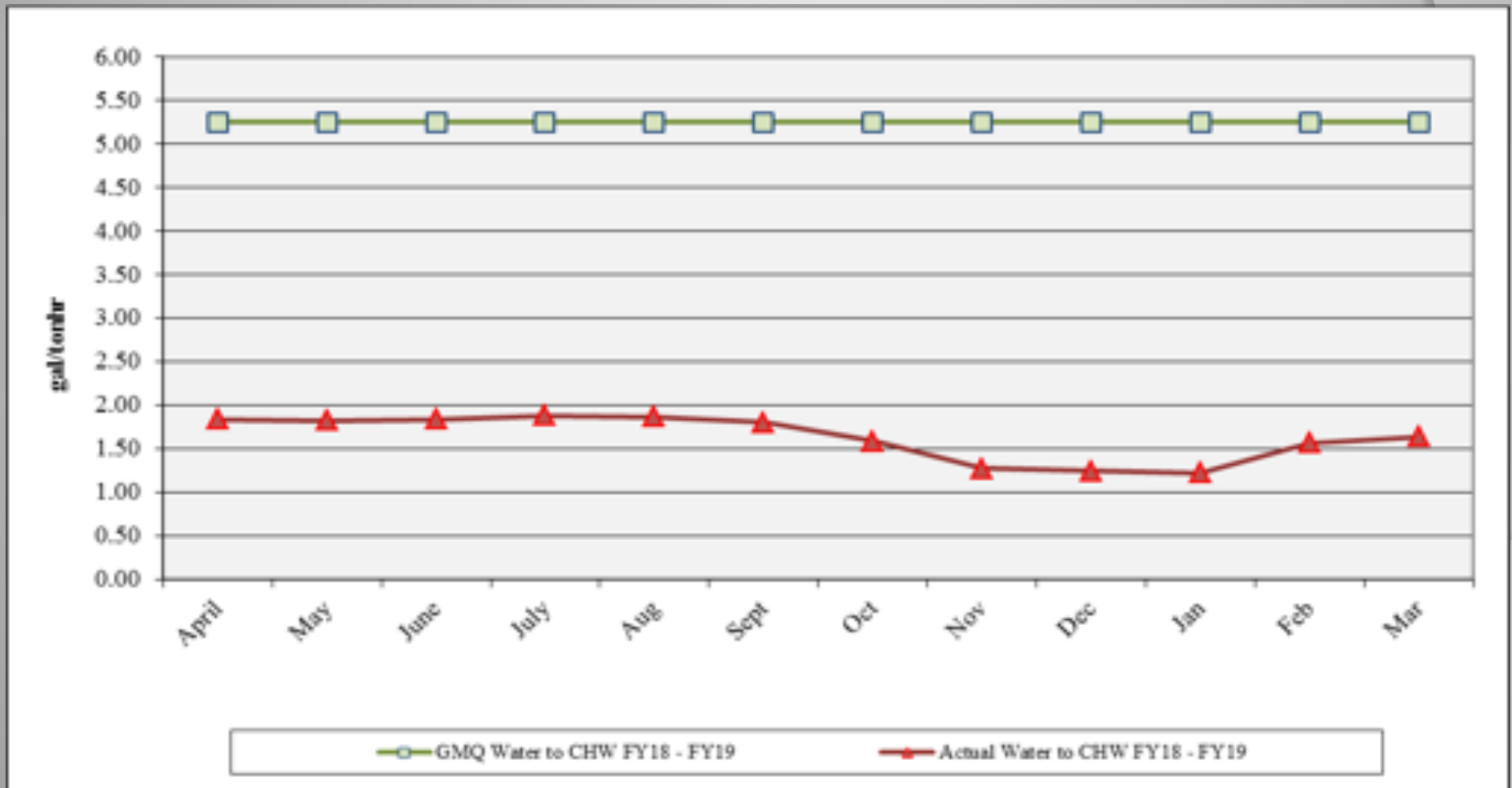




# Performance Measurement FY19: CHW Electric Conversion



# Performance Measurement FY19: CHW Water Conversion ●





# *Water Treatment*

- ❖ Steam and Condensate ●
  - ❖ Corrosion
  - ❖ Iron
  - ❖ Hardness
  - ❖ Chlorine/Sulfite
- ❖ 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 ●



# *EDS Walkthrough*

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

## *5. Natural Gas Purchasing*

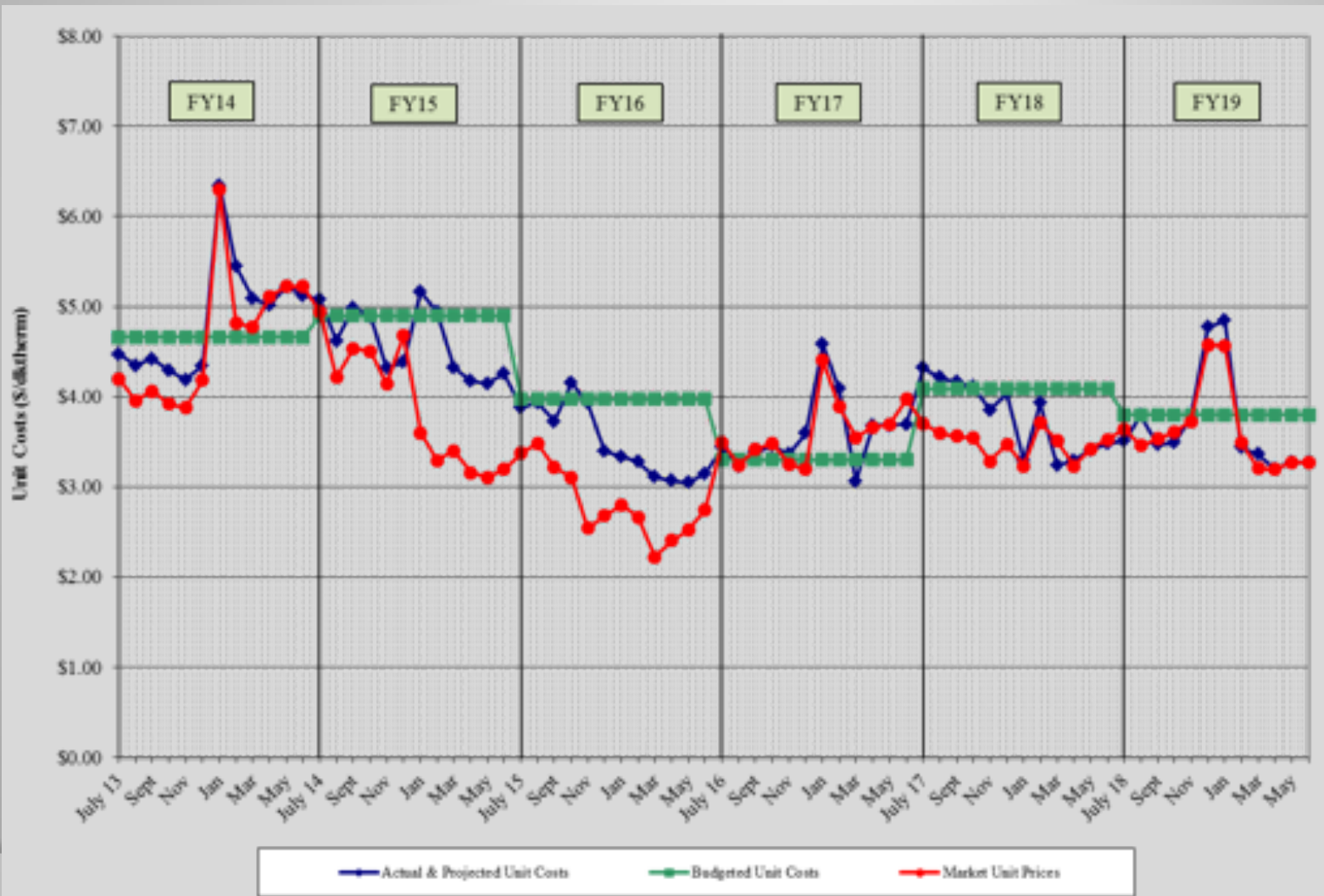
- ❖ Natural Gas Purchasing Review
  - ❖ Table 5: FY19 Gas Spending & Budget Comparison
  - ❖ Figure 5: Actual and Projected Gas Cost Comparison

## Table 5: FY19 Gas Spending & Budget Comparison

	Actual FY19 To date (Mar 31)	Budget FY19	Percent Difference
Steam Sendout (Mlbs)	361,057	332,820	8.5%
Fuel Use (Dth) (includes propane) ●	497,161	483,588	2.8%
Plant Eff (Dth/Mlb) ●	1.377	1.453	-5.2%
Total Gas Cost (includes propane) ●	\$1,964,096	\$1,866,644	5.2%
Unit Cost of Fuel (\$/Dth) ●	\$3.951	\$3.860	2.4%

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	\$ 4,909,600	\$ 4,804,000	\$ 3,759,000	78.25%
Pass Throughs				
Non-Energy	\$ 1,201,300	\$ 1,140,719	\$ 894,100	78.38%
Water/Sewer	\$ 560,300	\$ 751,900	\$ 463,300	61.62%
Natural Gas Base	\$ 2,105,100	\$ 2,173,300	\$ 2,021,400	93.01%
Natural Gas Contingency	\$ -	\$ 816,381	\$ -	0.00%
Electricity	\$ 5,144,000	\$ 5,685,900	\$ 3,762,100	66.17%
ORF Deposit	\$ -	\$ -	\$ -	
Debt Service	\$ 5,395,400	\$ 5,420,200	\$ 4,550,900	83.96%
<b>Total Expenses</b>	<b>\$ 19,315,700</b>	<b>\$ 20,792,400</b>	<b>\$ 15,450,800</b>	<b>74.31%</b>
<b>Total Revenues</b>	<b>\$ 17,093,000</b>	<b>\$ 19,152,100</b>	<b>\$ 13,689,100</b>	<b>71.48%</b>
<b>Metro Funding Amount</b>	<b>\$ 2,222,700</b>	<b>\$ 1,640,300</b>	<b>\$ 1,640,300</b>	<b>100.00%</b>

Actual Costs to Date includes some 4<sup>th</sup> Quarter items.

## 7. *Marketing*

### New and Potential Customers

- 5<sup>th</sup> + Broadway (601 Commerce)
  - 1,200 ton contract capacity; no steam
  - Service connections complete; anticipate usage during construction in May-June 2019
  
- Hyatt Centric (3<sup>rd</sup> Ave and Molloy)
  - Negotiations ongoing and favorable
  - 255 to 300 ton contract capacity; no steam
  - Service during construction Spring 2020; February 2021 opening

## *Marketing (con't)*

- Service to Lot K
  - Site directly to the east of EGF
  - Early stages of communication
  - New service to east under parking lot
  - Potential ~1,000 ton and ~15,000 pph
  
- Service to New KVB Hotels
  - Two hotels with retail space on one block on KVB
  - Early discussions are favorable
  - Potential ~1,400 tons and ~20,000 pph
  - New service along Peabody St

## 8. *DES RFP Update*

### DES-139

- Five Round One Proposals Advanced to Round Two
- Four Round Two Proposals Received
  - One Proposal to Purchase
  - Three Proposals to Operate
- Based on Evaluation of Scores, Metro Issued Intent to Award Letter to Engie Development, LLC Contingent Upon Successful Contract Negotiations to Purchase
- Michelle Hernandez Lane, Chief Procurement Officer/Purchasing Agent
  - Procurement Process
  - Current Status

## 9. Capital Expenditure Update

	<b>Spent to End of FY18</b>	<b>FY19 Spending</b>	<b>Balance to Date (04/22/19)</b>
R&I Projects	\$3,353,083	\$336,342	\$2,694
49109-2010 Bond	\$2,497,999	\$90,806	\$17,111
49107-DES Infrastructure Fund	\$8,466,205	\$31,573	\$2,221
49116-DES Infrastructure Fund	\$0	\$378,379	\$1,381,621
<b>Total</b>	<b>\$14,317,287</b>	<b>\$837,100</b>	<b>\$1,403,647</b>

# *Capital Projects Review*

## Active Capital Projects

- DES 133.1: Broadway Tunnel Damage Recovery
- DES 135: CHW Leak at 5<sup>th</sup> & Union: ongoing; add'l testing conducted during the quarter; coordinating with MWS
- DES 144: MH 6 Repair – closed
- DES 149: 1<sup>st</sup> and Molloy Hot Spot – closed
- DES 151: MH 23 Repairs – construction completed 3<sup>rd</sup> Qtr; anticipate closure in 4<sup>th</sup> Qtr
- DES 152: MH A & M Coating Repairs – postponed until FY20
- DES 153: MH L Repairs – in design

# *Capital Projects Review*

## Active Capital Projects - continued

- DES 154: Manhole K Repairs – postponed until FY20
- DES 157: MH 9 Repairs – in design; will be bid in 4<sup>th</sup> Qtr FY19
- DES 158: MH 18A Repairs and MH 18 Anchor Repair – construction completed; MH 18A will be closed 4<sup>th</sup> Qtr FY19; MH 18 requires additional work to take place during the summer under new project number
- DES 159: MH B2 Repairs – in design; will be bid in 4<sup>th</sup> Qtr FY19
- DES 160: 5<sup>th</sup> + Broadway Service Connection – connections for service completed; awaiting install of instruments



# *Capital Projects Review*

## Active Capital Projects - continued

- DES 162: Hyatt Centric Service – negotiations with new customer ongoing
- DES 163: MDHA Parcel K Service – negotiations with new customer in early stages
- DES 164: Broadway Tunnel Repairs – construction complete; anticipated closure in 4<sup>th</sup> Qtr FY19
- DES 165: AA Birch Tunnel Repairs – construction complete; anticipated closure in 4<sup>th</sup> Qtr FY19
- DES 166: Misc Tunnel Repairs - construction complete; anticipated closure in 4<sup>th</sup> Qtr FY19



# *Capital Projects Review*

## Capital Projects in Close-out/Closed

- DES 144: MH 6 Repair
- DES 149: 1<sup>st</sup> and Molloy Hot Spot

## *10. Other Board Member Items*

## *11. Adjourn*

- *Advisory Board Meeting Schedule*
- FY19 – 4<sup>th</sup> Quarter Meeting – August 15, 2019
- FY20 – 1<sup>st</sup> Quarter Meeting – November 21, 2019
- FY20 – 2<sup>nd</sup> Quarter Meeting – February 20, 2020
- FY20 – 3<sup>rd</sup> Quarter Meeting – May 21, 2020